



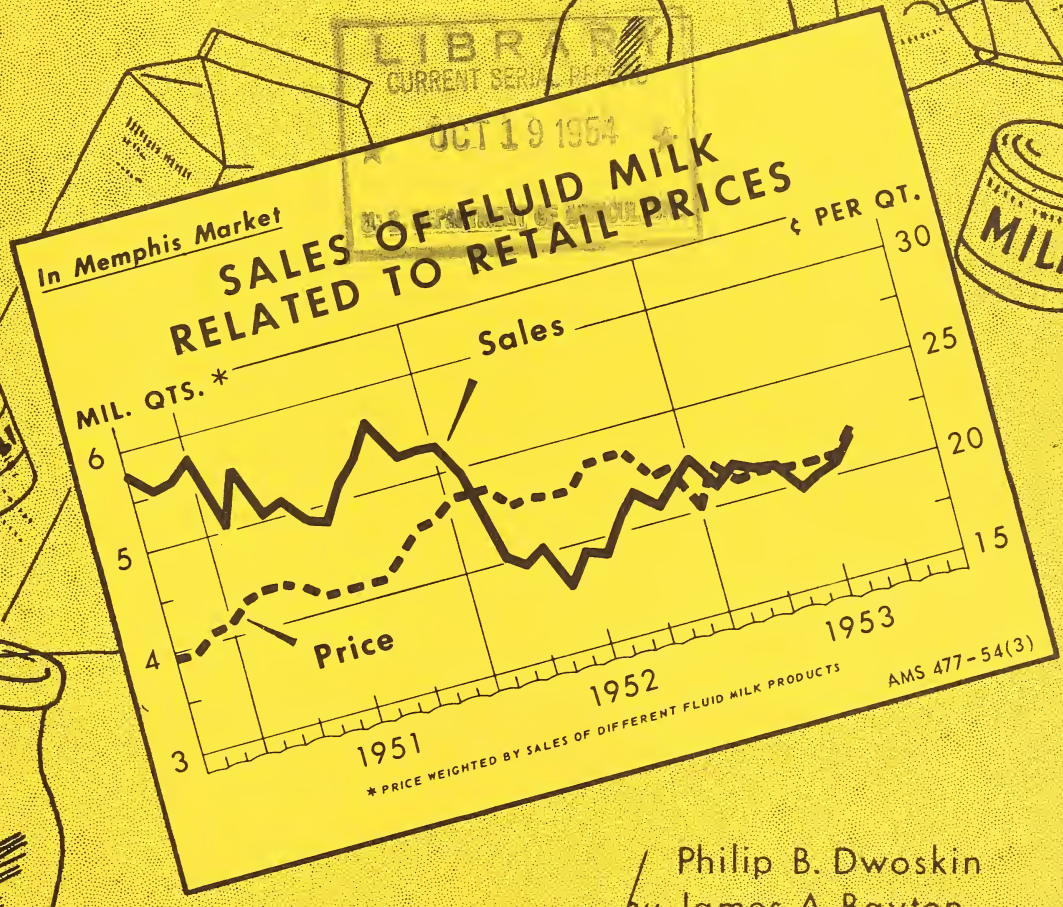
Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

Agg 849M
cop. 3

Library

CHANGING PATTERNS OF MILK CONSUMPTION in Memphis, Tenn.



Philip B. Dwoskin
by James A. Bayton
William S. Hoofnagle

Marketing Research Report No. 69

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

WASHINGTON, D. C.

June 1954

CONTENTS

	Page
Summary.....	i
Introduction.....	1
Objectives.....	1
Sample.....	2
Research findings.....	3
Price as a factor in milk sales.....	3
Consumer awareness of promotion.....	12
Specific uses made of fluid milk and nonfat dry milk solids.....	13
Butter and oleomargarine.....	16
Other milk products.....	18
Appendix.....	20
Guide to tables.....	20

ACKNOWLEDGMENTS

The excellent cooperation of consumers, milk distributors, wholesalers of nonfat dry milk solids, and others in the Memphis market made this study possible. Special appreciation is due Ross B. Clark, secretary-manager, Mid-South Milk Producers Association; C. I. Dunn, market milk administrator, U. S. Department of Agriculture; Ray C. Schutt, distributor, Dean's Milk; Frank B. Willis, account executive, television station WHBQ-TV, all of Memphis, Tenn.; and Lloyd F. Friend, manager, Prairie Farms Creameries, Chicago, Ill.

Valuable guidance in planning the study and its subsequent analysis was given by Shelby A. Robert, Jr., of the Market Development Branch, Agricultural Marketing Service.

Hugh P. Bell of the Market Development Branch, Agricultural Marketing Service, rendered valuable assistance in the preparation of the questionnaire used in this study.

Interviews and tabulations upon which the report is based were made by Field Research Company of San Francisco, Calif., under contract. The planning and sample design of the study were undertaken in the Agricultural Marketing Service; the questionnaire was a joint endeavor with the contractor. Responsibility for the interpretation and analysis of the findings is solely that of the authors.

SUMMARY

Sales of fluid milk in the Memphis market trended downward from October 1950 to September 1952. Beginning in October 1952 and continuing throughout 1953, several changes occurred in the market which reversed this downward trend and produced an increase in sales. These changes included a decrease in price, an increase in promotional activity on the part of producers and distributors, and several shifts in merchandising practices on the part of milk distributors.

From October 1950 to September 1952 the average weighted retail price of fluid milk rose from 19.7 cents per quart to 23.7 cents per quart, an increase of 20 percent. During that period the retail sales of fluid milk dropped about 15 percent. Starting in October 1952 fluid milk prices declined, and by March 1953 the average weighted price had fallen nearly 4 cents per quart - back to approximately the October 1950 levels. Among the various fluid milk products the most pronounced drop was in the price of homogenized milk.

Concurrent with this period of price decline the local milk producers' association and the distributors conducted a stepped-up advertising and promotional campaign. In addition, a number of merchandising changes occurred. Among these changes were the elimination of price differentials between homogenized and regular milk, and between paper and glass containers, and the increased promotion of half-gallon containers.

As an outgrowth of these events, the previous downtrend in sales of fluid milk was reversed, and by March 1953 in-area sales were greater than for the same month a year earlier. This upward trend in sales continued throughout 1953, with the total quantity of milk bought by Memphis consumers in March-September 1953 running 7 percent greater than a year earlier.

The homemakers' reports showed that homemakers were shifting from regular to homogenized milk and that their total utilization of fluid milk had increased. For a 7-day period in 1953 the homemakers' families were using, on the average, about 1 quart more of fluid milk than in a comparable period a year earlier.

These consumption increases apparently were not due solely to the price declines, for few homemakers said they were aware that milk prices were lower than a year earlier. On the other hand, most of the homemakers were cognizant of the fact that fluid milk had been rather intensively promoted during the year. This lack of awareness of the price decline may have accounted, in part, for the fact that with each 1-percent drop in price, sales increased only about 0.4 percent. The study clearly suggests that promotional efforts--by television, radio, newspapers, and at point of sale--played an important part in the expansion of milk sales in the area.

Although the proportion of families using nonfat dry milk solids increased from 19 to 26 percent, the amount used per family on a milk equivalent basis dropped about a quart a week. One source of this decrease seemed to lie in the shift from regular to homogenized milk. Homemakers who used both homogenized milk and nonfat dry milk solids tended to do less cooking with the latter than those who used regular milk and the dried product. The emphasis placed upon butterfat content in some of the advertising of fluid milk seemed to create some negative attitudes among homemakers toward nonfat dry milk solids. In 1953 many more homemakers than a year earlier questioned the food values of the dried product in comparison with fresh milk, particularly with respect to the lack of butterfat.

There was a trend to sell more fluid milk in paper containers than in glass. This trend was associated with elimination of the former practice of selling milk in paper

containers at a higher price than in bottles. In addition, larger quantities of milk were marketed in half-gallon containers. These containers were usually paper. These trends for particular items (homogenized milk, paper containers, half-gallon containers, etc.) are undoubtedly interrelated. For example, those homemakers who sought the maximum price benefit by buying the half-gallon containers contributed significantly to the shift to paper containers and homogenized milk. This was true because the half-gallon containers were usually paper and in all cases involved homogenized milk. Those who found it more convenient to buy their milk at stores were likely to purchase half-gallon containers (available only in stores).

Nearly twice as many homemakers were using oleomargarine as were using butter. Few homemakers said they would use more oleomargarine if its price went down; most homemakers said they would use more butter if its price declined. This survey was made before the 1954 declines in retail prices of butter which resulted from reduction in support prices.

Among milk products such as whipping cream, Bulgarian buttermilk, and cottage cheese, it was the latter that showed a trend toward increased sales in 1953. Cottage cheese received rather intensive promotion during this period.

CHANGING PATTERNS OF MILK CONSUMPTION IN MEMPHIS, TENNESSEE

By P. B. Dwoskin, agricultural economist, J. A. Bayton, social science analyst,
and W. S. Hoofnagle, agricultural economist

INTRODUCTION

In Memphis, Tenn., the marketing of milk products had undergone numerous changes. Within the last few years nonfat dry milk solids were introduced to the market and heavily promoted; a new distributor of fluid milk entered the market, selling his product in paper containers at a reduced price; and greater amounts of fluid milk were made available at the retail level in half-gallon and gallon containers. These larger-size containers represented a price saving for the consumer. Intensified advertising was undertaken by local distributors.

With all of these changes occurring in this market, the critical question becomes: How did the consumer react? With the decline in price of the major milk items was there a corresponding increase in consumption? What effect have these activities had on the pattern of consumption of the various milk products by individual households? Were any of the changes that occurred more typical of certain segments of the population than of others? To what extent did sales promotion efforts contribute to changes in consumer reactions?

In the fall of 1952, a consumer survey was conducted in the Memphis market.¹ Up to that time the market had been characterized by steadily rising prices of fluid milk, declining sales of fluid milk, and rapidly increasing sales of nonfat dry milk solids. The findings of the study indicated that only a part of the decline in sales of fresh fluid milk in the Memphis market was brought about by the substitution of nonfat dry milk solids for fresh milk products. Factors such as increased price of fluid milk, price differentials between paper and glass containers, and homogenized and regular milk, and a municipal ordinance eliminating the sale of 1/3-quart containers to institutional outlets were also found to be important.

In the ensuing year, the rising price trend for fluid milk was reversed with several price decreases. In addition, increased promotional activities and changes in merchandising practices occurred. The market had been so active during this year that it was felt that a new consumer survey should be undertaken in order to evaluate consumer behavior in relation to these changes. In order to make the new data as reliable as possible, an attempt was made to re-interview the same homemakers as those questioned in the 1952 sample. The interviewing took place during the fall as was true in the 1952 survey.

In addition to the consumer data, sales and price information were obtained for the Memphis market. The two categories of information have been integrated in this report.

The current study emphasizes all of the changes that have been enumerated previously in contrast to the stress that was placed upon nonfat dry milk solids in the 1952 research. Included in this new emphasis are data on butter and oleomargarine.

Objectives

This study had as its general purpose a comparison between the past and present utilization patterns for milk and milk products in Memphis and the determination of

¹Dwoskin, P. B. Milk Products: Consumer Purchase Patterns and Use. Marketing Research Report No. 39, Bur. Agr. Econ., U. S. Dept. Agr., May 1953.

economic and psychological factors underlying the utilization patterns. This analysis was designed to obtain information that would be helpful to the milk industry in evaluating the reaction of consumers to the impact of price drops and promotional activities. Although the findings of this research pertain to Memphis, some of the results may have implications for other milk markets.

The products investigated were:

Regular (not homogenized) milk
Homogenized milk
Premium extra rich milk
Fresh skim milk
Plain buttermilk
Bulgarian buttermilk
Chocolate milk
Coffee cream
Whipping cream
Half-and-half mixture

Nonfat dry milk solids

Evaporated milk
Condensed milk

Butter
Oleomargarine

Cottage cheese

The current study was designed to provide information concerning the following:

1. The current pattern of use of fluid milk products in households.
2. Where consumers buy fluid milk products.
3. The types and sizes of fluid milk containers that consumers prefer.
4. Consumers' knowledge of and attitudes toward price changes of fluid milk.
5. Changes in amounts of fluid milk products used in comparison to the previous year.
6. The use of other milk or substitute milk products--nonfat dry milk solids, canned milk, butter, and oleomargarine.
7. The specific uses made of milk and substitute products--fresh milk, canned milk, dried milk, butter, and oleomargarine.
8. Consumer opinions about the qualitative aspects of fresh fluid milk and nonfat dry milk solids, butter, and oleomargarine.
9. Consumer awareness of promotional activities of the milk industry--local and national.

Sample

The 1952 sample represented all households in the Memphis metropolitan area. A total of 1,649 households were contacted in a stratified random sample of 69 blocks.

An attempt was made to interview each homemaker in the sample blocks who had used nonfat dry milk solids in the last six months and every fourth nonuser of this product. This procedure yielded 306 users and 308 nonusers of nonfat dry milk solids. In the 1953 survey, the interviewers were sent to the same dwelling units where homemakers had been interviewed a year earlier. When a new family occupied a dwelling unit, the new family was interviewed. Of the original (1952) group of respondents, 71 percent were re-interviewed in 1953. Some dwelling units were either vacant or torn down; in some instances, the respondent was out of town. Altogether, the current survey is based upon 571 respondents rather than 614, as contacted in 1952.

Because the nonusers of nonfat dry milk solids had been sub-sampled in 1952 at a rate of about 1 in 4, a weight of 4.36 was assigned to them to obtain city-wide estimates. In 1953 each of the sample dwelling units was given the same weight as it had been given the previous year, regardless of whether the family occupying the dwelling unit in 1952 was the same or a new family, or whether the occupants of the dwelling were users or nonusers at the time of the second survey.

RESEARCH FINDINGS

Price as a Factor in Milk Sales

Price trends. --From October 1950 through October 1952 the trend in the average weighted retail price per quart of all fluid milk products was gradually upward. In October 1952 this trend was reversed, dropping to its lowest point in January 1953. During 1953 the average weighted retail price of fluid milk rose somewhat but remained at a lower level than prevailed during 1952 (fig. 1).

These trends for all fluid milk products were reflected in the retail price of regular and homogenized milk. These two products constituted approximately 75 percent of the total fluid milk sold in Memphis (table 1). In August 1952 regular milk was retailing, both in stores and for home delivery, at 24.5 cents a quart in paper containers and 23 cents in glass. In November 1952 the retail price of regular milk for home delivery was 22 cents in both types of containers. By March 1953 this price had decreased to 21 cents. Generally, prices in chain stores were 1 cent lower than prices for home delivery. A 1-cent rise in retail price occurred in September 1953 throughout the market.

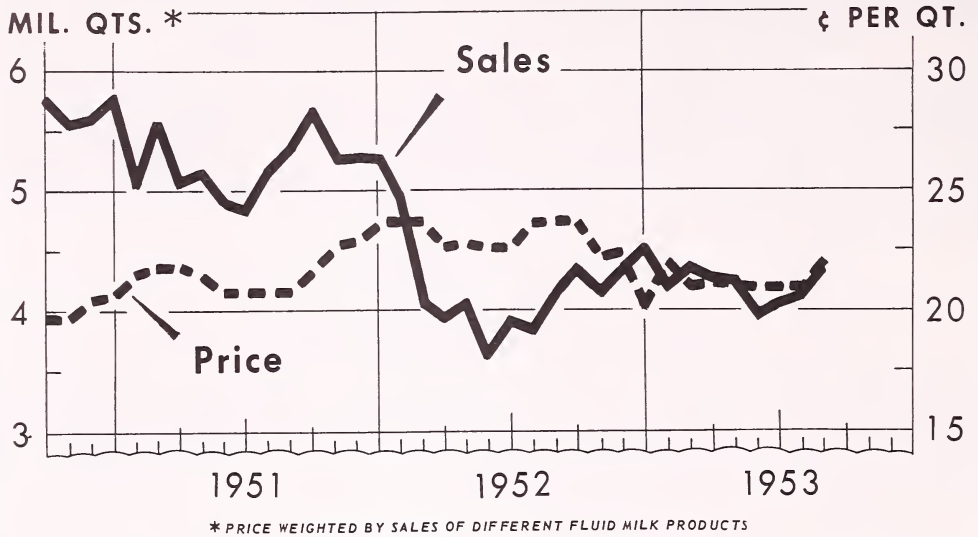
The retail price of homogenized milk was about 1 cent higher per quart than regular milk in August 1952. The subsequent trend in price of this product was similar to the trend in prices of regular milk. However, the initial decrease in price was greater proportionately for homogenized than for regular milk because by Nov. 1952, the two were retailing at the same price. During this period homogenized milk sold in half-gallon paper containers was approximately 1 cent cheaper than an equivalent quantity sold in quart paper or bottle containers (table 2). Homogenized milk was offered at even lower prices in "weekend specials." This promotion was directed primarily toward increasing use of the half-gallon container.

The above trend in retail prices was observed for buttermilk (approximately 13 percent of total milk sales), special extra rich milk, cream, and chocolate milk (tables 1, 2).

Consumer awareness of price changes. --Before a price change can influence consumer behavior it is necessary that consumers be aware of such a change. The household survey took place in November 1953 soon after there had been increases in retail prices of fluid milk products. However, these retail prices were still below those of the previous year. Consumers seemed to be more aware of the recent increase in prices than they were of the fact that prices were lower than they had been a year earlier. When consumers were asked whether retail prices were "lower, about the same, or

In Memphis Market

SALES OF FLUID MILK RELATED TO RETAIL PRICES



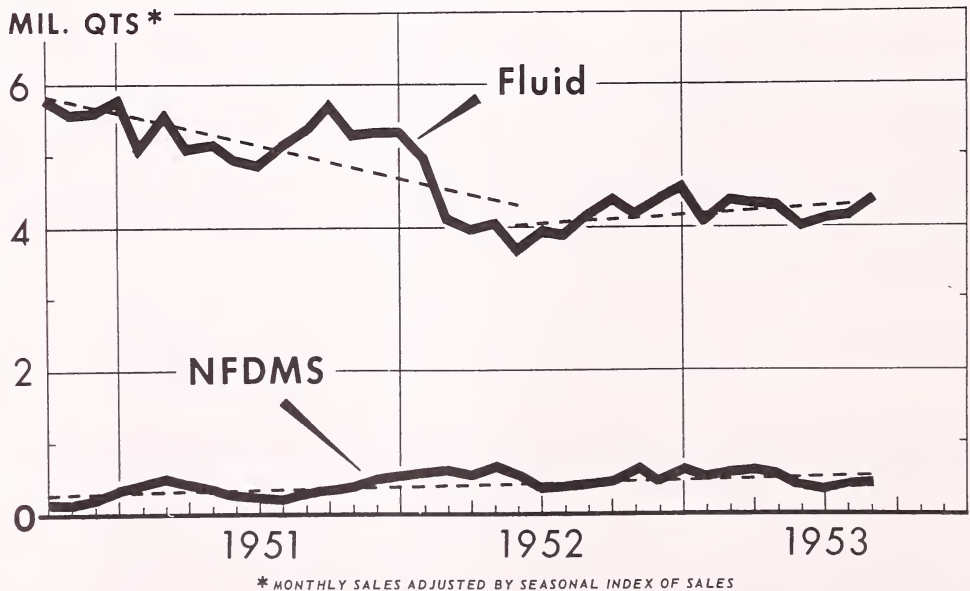
U. S. DEPARTMENT OF AGRICULTURE

NEG. 477-54(3) AGRICULTURAL MARKETING SERVICE

Figure 1

In Memphis Market

SALES OF FLUID AND DRY MILK



U. S. DEPARTMENT OF AGRICULTURE

NEG. 473-54(3) AGRICULTURAL MARKETING SERVICE

Figure 2

higher than a year ago," most of those who reported differences said there had been increases for regular and homogenized milk. Considerable proportions of homemakers said that they did not know whether prices had changed. This was especially true for items such as half-and-half mixture, cream, and cottage cheese (table 3). Awareness of price changes was not related to the income level of consumers.

Trends in sales. --For most of the period from October 1950 to October 1952, when the trend in retail prices of fluid milk was upward, there was a downward movement in in-area (metropolitan Memphis) sales. In the latter half of 1952 the movement in sales was upward, and by March 1953 the level of sales was higher than in the same month a year earlier. For the last 3 years there has been a rising trend in the sales of nonfat dry milk solids (fig. 2). During this period the sales of homogenized and regular milk have been moving in opposite directions--homogenized milk sales have been increasing whereas the sales of regular milk have been declining (fig. 3). Sales of buttermilk, cream, and chocolate milk declined until the last year, when an increase in sales became evident. Premium extra rich milk, on the other hand, continued its decline in sales during 1953 (fig. 4).

Sales of fluid milk products follow a definite seasonal pattern. For homogenized and regular milk, peak sales occur in October; the low point in sales takes place in the summer months. Buttermilk sales reach an apex during February-March with lowest sales coming in July and August. This trend in buttermilk sales is possibly a reflection of the use of this product in baking hot breads during the winter months. The sales of chocolate milk are highest in the summer when its demand as a beverage is greatest (table 4).

Year-to-year trends in sales of milk products were reflected in the reports of homemakers. When the information obtained in 1953 of use during the previous 6 months was checked against that which had been given in 1952, it was found that increased proportions of homemakers were using homogenized milk, buttermilk, chocolate milk, cream, and nonfat dry milk solids. The proportion using regular milk in 1953 was less than the proportion using it in 1952. The pattern of change seen in an increase in use of homogenized milk and a decrease in use of regular milk is strikingly demonstrated in the consumer data on the 7-day period prior to the interview. This pattern was evident for fluid milk for the briefer period involved, but the pattern was not observed in the use of other milk products during the 7-day period. Apparently, the most significant and persistent change in the Memphis milk market has been the shift from regular to homogenized milk (table 5).

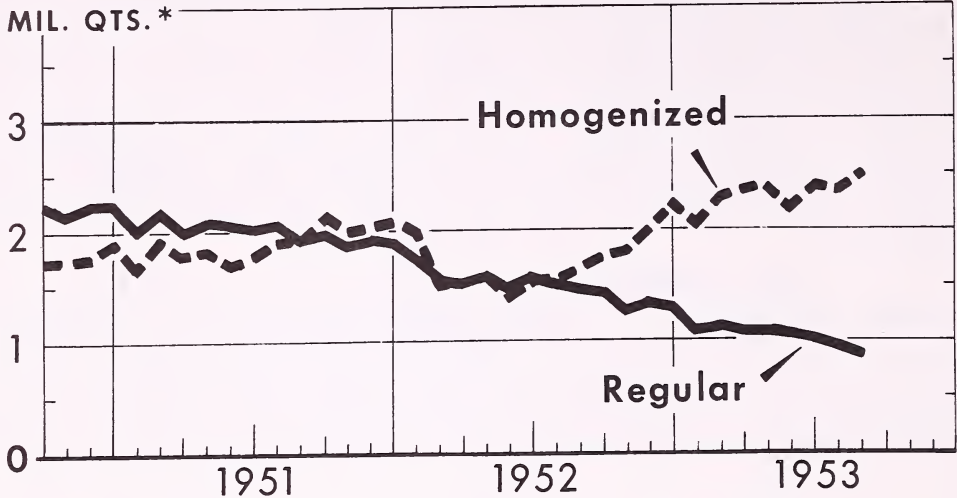
When the homemakers were asked to compare the advantages of regular and homogenized milk, about 6 out of 10 did not give any advantages for the former. Most of those who did cite advantages for regular milk said, "You can use the cream off the top." Only about 3 out of 10 did not state any advantages of homogenized over regular milk. The key advantage attributed to homogenized milk was that the cream is more evenly distributed. Other reasons were that this product is richer and tastes better (table 6).

Family characteristics of users of milk products. --It was the homemakers of relatively higher socio-economic status (as shown by income and education) who were more likely to be users of homogenized milk, half-and-half mixture, and cream. White homemakers were more apt to be users of these products than Negro homemakers. Buttermilk was more likely to be used by homemakers of relatively lower socio-economic status (tables 7, 8, 9). A significantly higher proportion of Negro homemakers than of white homemakers used buttermilk.

In 1952 it was found that nonfat dry milk solids had somewhat more appeal in the lower income group. The 1953 data, however, do not indicate that the family income was related to the proportion of homemakers using this product (table 10).

In Memphis Market

SALES OF REGULAR AND HOMOGENIZED MILK



* MONTHLY SALES DATA ADJUSTED BY A SEASONAL INDEX OF QUANTITIES SOLD

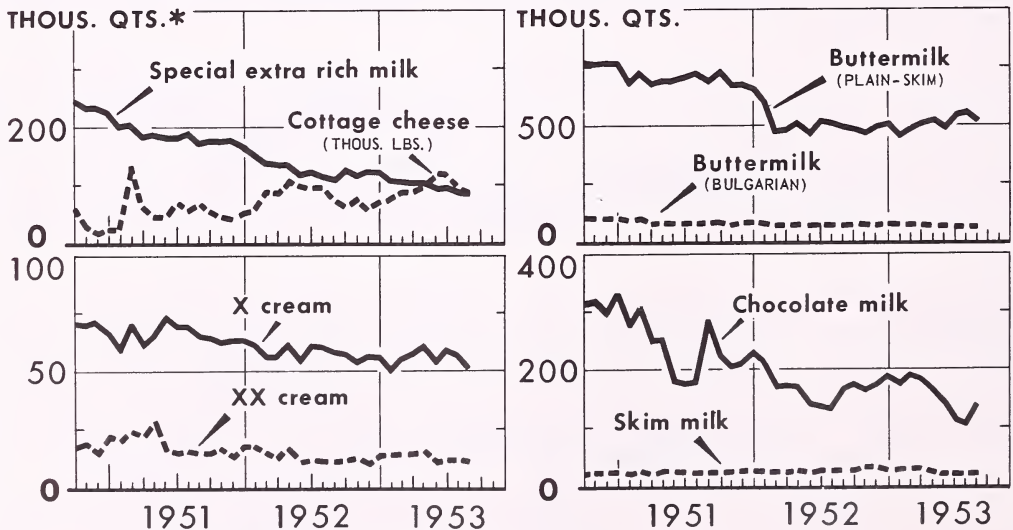
U. S. DEPARTMENT OF AGRICULTURE

NEG. 474-54(3) AGRICULTURAL MARKETING SERVICE

Figure 3

In Memphis, Tennessee

TRENDS IN THE SALES OF SPECIFIED MILK PRODUCTS



SALES DATA ADJUSTED BY SEASONAL INDEX
*THE LINE FOR COTTAGE CHEESE INDICATES THE TREND IN MANUFACTURE OF THE PRODUCT

U. S. DEPARTMENT OF AGRICULTURE

NEG. 699-54(5) AGRICULTURAL MARKETING SERVICE

Figure 4

As would be expected, the presence of children in households was associated with the higher proportion of homemakers using fresh whole milk. The use of regular milk was more apt to be found in families with older children--13 to 20 years of age. In contrast, use of homogenized milk was more characteristic of families with younger children. Chocolate milk was more likely to be used when there were children in the family. A higher proportion of the homemakers who used nonfat dry milk solids had children in their families than was true for nonusers of the product (tables 10, 11).

Amounts of milk products consumed in households. --Not only were the numbers of families in Memphis who were using products such as regular and homogenized milk and nonfat dry milk solids changing but there was evidence that the amounts being consumed per family were shifting. The median amount of regular milk bought in a 7-day period changed from 4.6 quarts in 1952 to 4.0 quarts in 1953--about a half quart less than in 1952. Not only were more families using homogenized milk but also more of the product was being bought per family. The amount of homogenized milk bought per family changed from 5.6 quarts in 1952 to 6.0 quarts in 1953. These increases for homogenized milk (proportion of families using and amount bought per family) more than offset the decreases for regular milk. This meant that in a 7-day period in 1953, the total consumption of fresh whole milk was about 1 quart higher, per family, than it had been in 1952.

Proportion of families using nonfat dry milk solids increased but amount bought per family decreased from 5.3 quarts in 1952 to 4.4 quarts in 1953, on a reconstituted basis (table 12). In 1952 most homemakers who were using nonfat dry milk solids said that they found themselves using about the same amount of the product "as time passes." The above data, based upon analysis of the actual amounts reported being used in 1952 and in 1953, showed a decline. The homemakers generally were aware of this fact since, when asked whether they had made any change in the amount of the dried product from one year to the other, most reported that they were using less in 1953 than they used in 1952. This was true both for the group that said, in 1952, that they were using the same amount and for those who said they were using more nonfat dry milk solids than in previous years. (table 13).

An analysis of the reported purchases by homemakers, given separately, in 1952 and 1953, showed an increase in the amount of fresh whole milk bought in a 7-day period. Since it has already been demonstrated that the sales (or purchases) of homogenized milk were increasing and those of regular milk were decreasing, this overall increase for fresh whole milk could only be due to the fact that the relative rate of increase for homogenized milk was much greater than the relative rate of decrease for regular milk. The shift to homogenized milk was more marked among consumers who used dry milk solids than among nonusers of this product. The decrease in per family purchases of nonfat dry milk solids, mentioned above, was apparently offset by increased purchases of homogenized milk on a per family basis (table 14). Among the members of families, particularly families with children, the distribution of the milk supply was not even. In terms of sex, homemakers reported that the males in their families drank most of the milk. With respect to age, the homemakers said children consumed most of the supply (table 15).

Relationship between price changes and quantities sold. --An attempt was made to determine the degree to which changes in sales of fluid milk were associated with changes in their retail prices. The period covered by these analyses began with October 1950 and ended with September 1953. The data revealed a low negative association between retail prices and quantities sold ($r = -0.40$).

This lack of a strong relationship between changes in retail prices and sales of fluid milk is not as surprising as it might appear on the surface. It has already been indicated that considerable proportions of homemakers said that they did not know whether prices had changed. Nearly as many said that prices had remained the same. This

relatively low incidence of awareness of the price changes on the part of homemakers negates somewhat consumers' response to the actual price changes. There could have been many homemakers who wanted to increase their purchases of fluid milk when prices declined, but as they did not know that a decline had in fact occurred they did not make any change. These results contain the strong suggestion that, whenever price decreases occur, promotional efforts are a necessary supplement in order to derive maximum sales benefit from these decreases (fig. 5).

When the analysis of the relation between retail prices and sales of fluid milk products was extended backward through a year or more (October 1951-September 1952), no appreciable relationship was found. However, if these data are observed for the last 6 months (April-September) in the period studied in 1952 and 1953 some degree of association seems to exist. For each of the months in 1953 the average weighted price of fluid milk was less than it had been for the same month a year earlier. On the other hand, for each of the months during this period in 1953 sales of fluid milk were higher than the comparable months in the previous year (table 16).

The above analysis was undertaken to determine the relative percentage change in sales resulting from a given percentage change in price. In this instance, with each 1-percent decrease in price there was a 0.4-percent increase in amounts sold.² Studies in other cities have shown approximately this same order of relationship for fluid milk.³ Although these data for Memphis were based upon only two 6-month observations, apparently in this city, as in others, retail price reductions do bring some increase in sales even though the sales are not relatively commensurate with the price changes.

Half-gallon containers for fluid milk. --In the latter part of 1952, two changes in merchandising practices occurred that had price-saving features from the consumer's point of view. Both of these practices had to do with the half-gallon container for fluid milk. One of these changes was a decrease of several cents in price; the other was an increase in promotion of fluid milk in this size container, especially homogenized milk. With this decrease in price, homogenized milk sold for 43 cents a half-gallon. In some weekend "specials" the price for this quantity dropped to 37 cents.

Prior to November 1952 a very small proportion of homogenized milk was sold in half-gallon containers. In that month the proportion being sold in this fashion increased about fivefold. By September 1953 approximately 25 percent of the homogenized milk

² The ratio of relative sales and price changes equaled -0.4 for fluid milk. This figure was computed from the following elasticity formula:

$$\frac{Q_a - Q_b}{Q_a + Q_b} \quad / \quad \frac{P_a - P_b}{P_a + P_b} \quad \text{where } Q_a =$$

sales in the first 6-month period (April-September 1952), Q_b sales in the second 6-month period (April-September 1953) P_a = average weighted price paid in first 6-month period and P_b = average weighted price paid in second 6-month period. An adjustment was made in the data for changes in income and population between the two periods based on U. S. averages. This -0.4 cannot be interpreted as actual measurements of the price elasticity of demand for fluid milk in Memphis unless it is assumed that both of these points are on the aggregate demand curve of consumers for this product. A statistical demand curve could not be constructed from the available data. It should be noted that with only two observations there are no degrees of freedom; hence in statistical terms no significance can be attached to the calculated elasticity of -0.4.

³ Gaumnitz, E. W., and Reed, O. M. Some Problems in Establishing Milk Prices, U. S. Department of Agriculture, DM-2, p. 44.

Rojko, Anthony S., An Application of the Use of Economic Models to the Dairy Industry. Journal of Farm Economics, Proceedings Number, Vol. XXXV, No. 5, December 1953, p. 844.

In Memphis Market

CONSUMER AWARENESS OF PRICE AND PROMOTION OF MILK

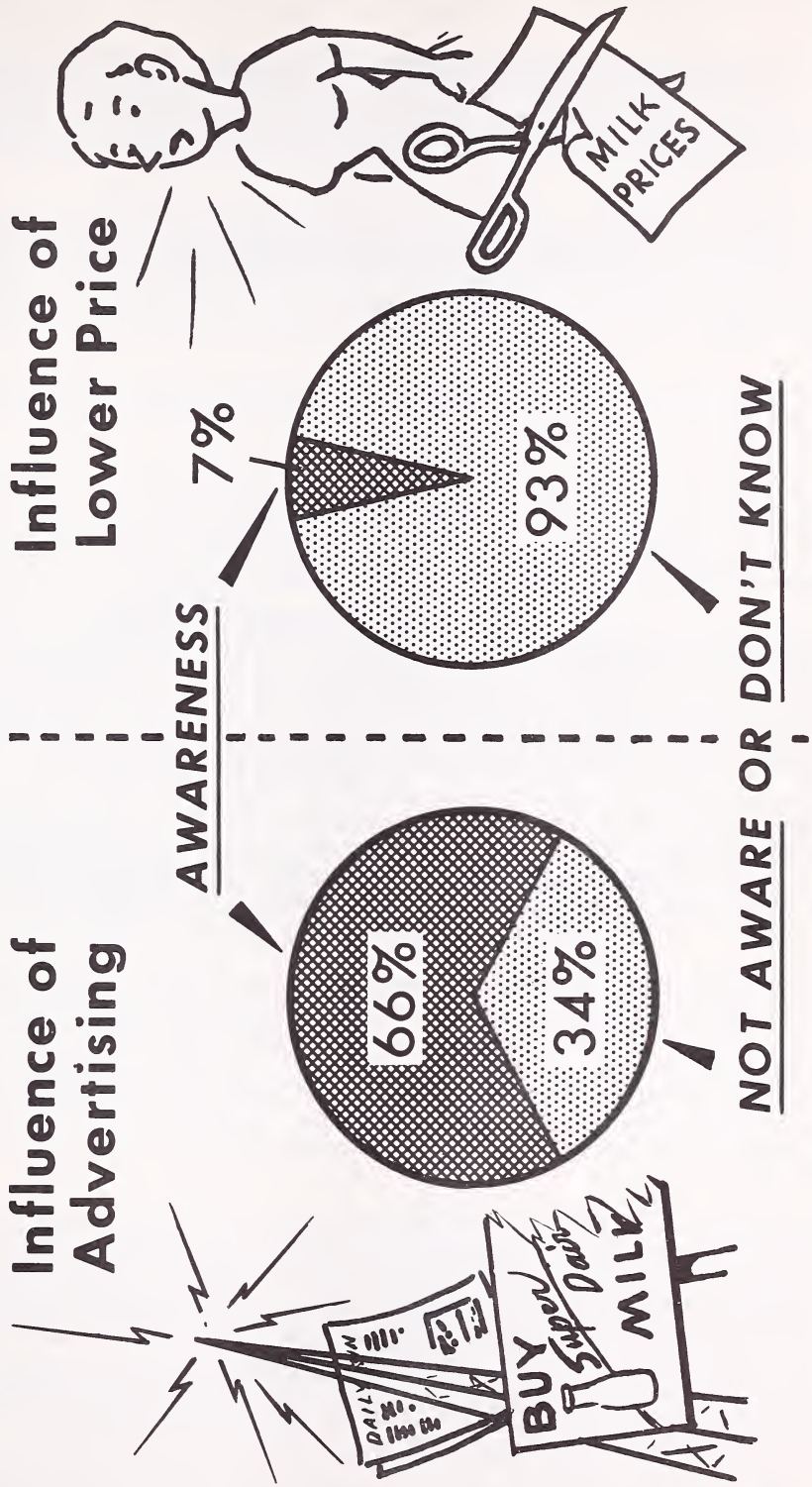


Figure 5

was being sold in this particular size container. In April 1953 the sale of regular milk in half-gallon containers was discontinued (fig. 6).

Most of the Memphis homemakers indicated that they preferred the quart-size container for fluid milk. However, about 3 out of 10 homemakers did say that they preferred the half-gallon container for homogenized milk (table 17). This substantiates the above data which showed that, for homogenized milk, the half-gallon container has some appeal.

Preference for the half-gallon size container was more often found among homemakers with the larger families (table 18). Some of the reasons homemakers gave for this preference seemed to reflect this factor of size of family: "It's cheaper"; "It's the size best suited for the amount my family uses"; "I can make fewer trips to the store." (See table 19).

The role of the number of people in a family in preference for size of container is further seen in the fact that the quart container has highest preference among families with only 1 to 2 people (table 18).

Apparently the storage facilities available to the homemaker affect her preference for size of container to some extent. Many homemakers who preferred the quart container said this size was "handier for storage." The same statement was made by many of the homemakers who said they preferred the half-gallon container (table 20).

Paper versus glass containers. --An additional merchandising change was a reduction of the price of milk in paper containers making it equal to that in glass bottles. Prior to October 1952, regular and homogenized milk in quart-sized paper cartons had cost 1-1/2 cents more than the glass counterpart. With the price differential eliminated, the proportion of fluid milk, regular or homogenized, sold in paper containers increased. The increase was more marked for homogenized milk. (fig. 7).

This change in type of container used is reflected in the homemakers' statements as to preference for paper or glass containers. Approximately 15 percent more homemakers in 1953 than in 1952 said they preferred the carton to the bottle. In spite of this change, the majority of homemakers expressed a preference for the glass container (table 21).

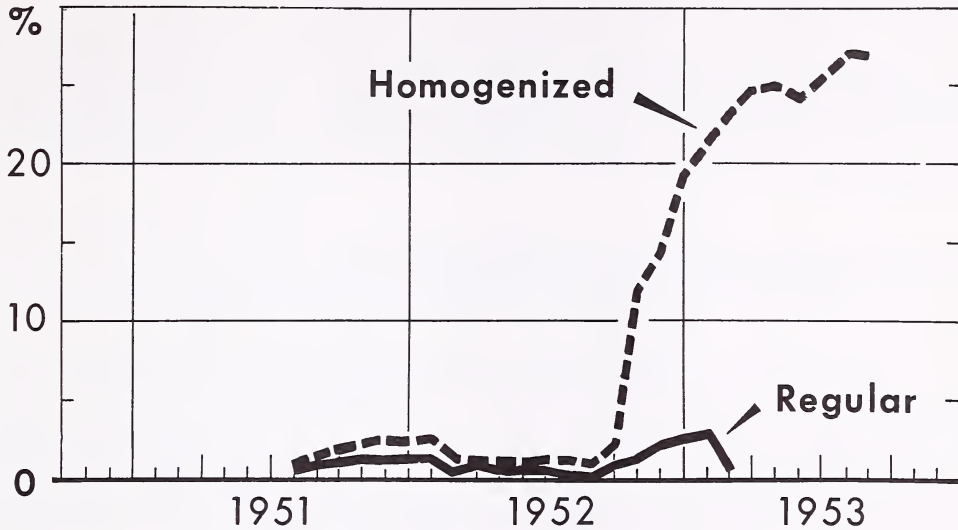
The outstanding reason for preferring milk in paper rather than glass was that the former could be disposed of easily. Some homemakers said they preferred the paper carton because it was easy to use and store (table 22). Although there was only one key reason for preference of paper over glass, there were several reasons given for preferring glass to paper. Some homemakers claimed that the paper carton affects the taste or flavor of the milk; others complained that the paper container is not durable enough. Some homemakers thought that milk in bottles is more sanitary and keeps better (table 23).

The extent to which paper can replace glass as a container for milk is influenced to some extent by the practice of delivering fluid milk to the home only in bottles. The homemakers of Memphis were almost evenly divided in terms of whether they bought milk products regularly through home delivery or at stores. A few more homemakers seemed to be buying their milk supplies regularly at stores. Purchase of fluid milk in stores was most characteristic of low-income groups. From one year to the other, there was very little change in the usual method of buying milk products. Homemakers who bought regularly by home delivery purchased a larger quantity of fresh whole milk in a 7-day period, than those who bought regularly at stores (tables 24, 25, 26).

In 1952, milk in bottles retailed at the same price on home delivery routes as in stores. Milk in paper containers, available only in stores, cost more. With the

In Memphis Market

PERCENTAGE OF FLUID MILK SOLD IN HALF-GALLON CONTAINERS



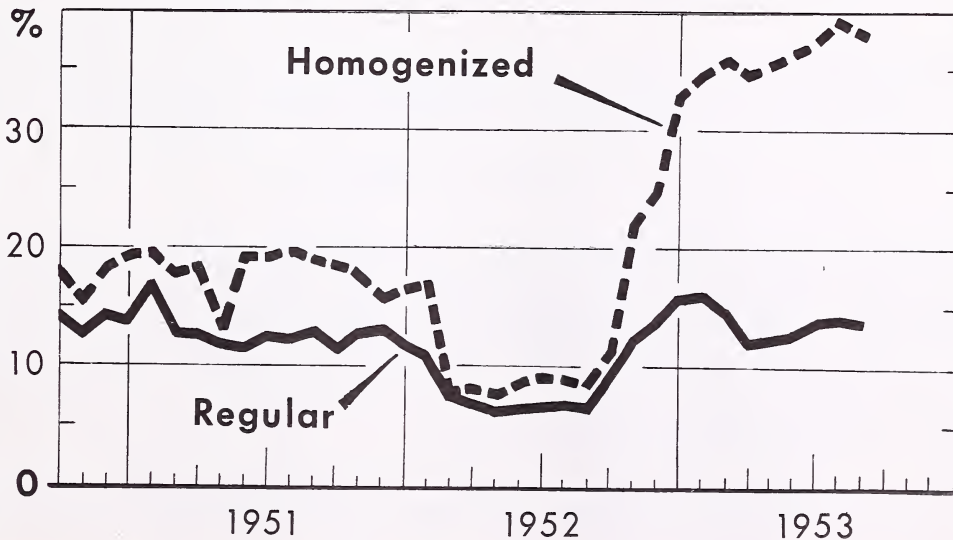
U. S. DEPARTMENT OF AGRICULTURE

NEG. 479-54 (3) AGRICULTURAL MARKETING SERVICE

Figure 6

In Memphis Market

PERCENTAGE OF FLUID MILK SOLD IN PAPER CONTAINERS



U. S. DEPARTMENT OF AGRICULTURE

NEG. 478-54(3) AGRICULTURAL MARKETING SERVICE

Figure 7

elimination of the paper-glass price differential, in late 1952, the primary advantages offered in home delivery were service and credit. Among homemakers who had an opinion on the matter, there were nearly as many who said home delivery prices should be higher than store prices as said there should be no difference. This was true regardless of whether the homemakers bought regularly from home delivery or in stores. However, more of those who bought in stores said they did not know what the price relationship should be (tables 27, 28).

Most of those who said that home delivery prices should be higher thought higher prices were justifiable on the grounds that an added cost to the companies was involved and that home delivery was a convenience to the customers. The homemakers who said that home delivery should not cost more thought that the companies had to deliver the milk to stores anyway and that the milk companies made enough profit to defray the cost of delivery (table 29).

Price decreases and satisfaction with amounts used. --It has been demonstrated that there was some positive consumer response to price decreases for fluid milk products. The question now may be raised as to whether these price reductions have permitted most homemakers to satisfy their needs for fresh whole milk. When they were asked, "If the price of fresh whole milk went down, do you think you would use more or not?" approximately 4 out of 10 replied that they would use more. This view was expressed more frequently by homemakers who also were using nonfat dry milk solids than by those who did not use the dried product. In contrast, 8 out of 10 homemakers who used nonfat dry milk solids said they would continue using the same amount of this particular product even though its price was reduced. For both fresh whole milk and nonfat dry milk solids it was the low-income homemakers who were most likely to say that a price reduction would lead to increased consumption (tables 30, 31).

Opinions on how milk prices are determined. --Since a sizable proportion of homemakers evidenced some dissatisfaction with the current retail prices of fluid milk, it is of some importance to know what they think as to how prices are established. When the homemakers were asked how milk prices are decided, the greatest proportion said that they did not know. Some said factors such as cost of operation and supply and demand decided milk prices. Others thought that various groups or agencies established these prices. Among the groups or agencies mentioned were the "Dairy Association," "milk companies," "the farmer," "the retailer," "the Government," and "labor unions" (table 32).

When asked directly about the influence dairy farmers have on setting the price of fresh milk, relatively few homemakers replied that this group had great influence. A comparable question about milk companies, on the other hand, revealed that a majority of the homemakers felt that milk companies had great influence (tables 33, 34).

Consumer Awareness of Promotion

In addition to the price changes that occurred in Memphis, there was a local campaign aimed at promoting consumption of dairy products. The Memphis population also was exposed to the national advertising campaigns of the milk industry. In the household survey an attempt was made to evaluate the effectiveness of these campaigns in terms of awareness of these activities on the part of homemakers. Measurement of the direct effect of advertising upon sales was not one of the objectives of the survey. However, a primary consideration in measurement of promotion effectiveness is the extent to which the consumer is aware of the advertising activity.

About two-thirds of the homemakers in Memphis said they had seen or heard more about dairy products during the last year. According to the homemakers, the most effective media were television, newspapers, and radio. In-the-store advertising also was mentioned frequently (table 35).

An attempt was made to study the respondents' awareness of advertising activities (June Dairy Month, Milk Festival, Ice Cream Festival, Cheese Festival) and advertising slogans ("You Never Outgrow Your Need for Milk," "Drink Memphis Fresh," etc.). The greatest degree of awareness was shown for the local slogan--"Drink Memphis Fresh;" next was the national slogan "You Never Outgrow Your Need for Milk." There was a fair degree of awareness of the advertising activities--Cheese Festival, etc. The higher awareness of the slogans over the activities could have been due to the fact that they were repeated more frequently and for a longer period. The advertising of the festivals is necessarily restricted to given time periods (table 36).

Income of the household was related to awareness of advertising among homemakers--awareness increased as income increased. A much sharper differentiation in awareness was observed, however, in the relation between education of homemaker and awareness of advertising. Nearly twice as many college-trained homemakers were aware of the advertising of milk products as were homemakers with only grammar school education (tables 37, 38).

These data on the relatively high incidence of awareness of promotional campaigns for dairy products strongly suggest that the advertising had some effect on consumer purchases.

Specific Uses Made of Fluid Milk and Nonfat Dry Milk Solids

Baking and cooking. --Between 1952 and 1953 the proportion of homemakers in Memphis who used regular or homogenized milk for baking and cooking apparently decreased. This decrease may indicate a general decline in baking and cooking among Memphis homemakers. In each of these years, however, more nonusers of nonfat dry milk solids than users said they bought regular and homogenized milk for baking and cooking. The reason for this is that large proportions of the users of nonfat dry milk solids use it for baking and cooking.

In 1952 homemakers who used the dried product were about evenly divided in how they used it (drinking, baking, and cooking). However, in 1953, the largest proportion used this product for baking, next was cooking, then drinking.

In both years, large proportions of homemakers used plain buttermilk for baking as well as for drinking. Memphis homemakers frequently mentioned that they used evaporated milk for baking and cooking, but most of them said they used evaporated milk for coffee and tea (table 39).

It was the homemakers with relatively high family incomes who more frequently used regular and homogenized milk for baking and cooking, as well as on cereal and in coffee and tea. Among users of dry milk solids, the homemakers with relatively high incomes used evaporated milk for baking and cooking and those with relatively low incomes were more likely to use the dried product for baking. Although this picture is not complete, it suggests that the low-income families were more prone than the higher-income families to shift from fluid and evaporated milk to nonfat dry milk solids for use in baking and cooking. This pattern is definitely seen in the data on the racial groups in Memphis. Among users of nonfat dry milk solids, white homemakers showed more of a tendency to use fresh milk for baking and cooking whereas Negro homemakers were more likely to use the dried product in these ways (tables 40, 41).

As family size increased, the proportion of homemakers using fresh milk for cooking and baking decreased. This was especially true among those who also used nonfat dry milk solids. The proportion of homemakers using the dried product for baking and cooking increased with size of family. This indicates that the use of nonfat dry milk solids for baking and cooking has special appeal to large-sized families (table 42).

Combinations of milk products and pattern of specific uses. --Homemakers who had used nonfat dry milk solids within the last 6 months were asked what combinations of specified milk products they had used in the 2 weeks prior to being interviewed. Almost two-thirds of them had used the dried product and fluid milk products. The product most often found in combination with nonfat dry milk solids was homogenized milk. In this 2-week period, however, 30 percent of these homemakers used only a fresh milk product; 7 percent used only the dried product (table 43 and fig. 8).

Use of nonfat dry milk solids in combination with fresh milk products for the 2-week period was most characteristic of the higher income families. This was most pronounced when nonfat dry milk solids were combined with homogenized milk. For the period, the exclusive use of the dried product was more often found in the low-income families (table 44).

The particular fluid milk product combined with nonfat dry milk solids was related to the pattern of specific uses. The extent to which the dried product was used for cooking and on cereal seemed to depend on whether the homemaker bought the fluid homogenized-nonfat dry milk solids combination or the regular-nonfat dry milk solids combination. On comparing the two combinations, the dry product was more likely to be used for cooking and on cereal if the dry product was bought in combination with regular milk. In fact, among homemakers who bought the regular-nonfat dry milk solids combination, many more used the dried product for cooking than used regular milk in this way. In the homemaker's mind, apparently, the substitutability of nonfat dry milk solids is greater for regular than for homogenized milk, especially when used for cooking and on cereal (table 45).

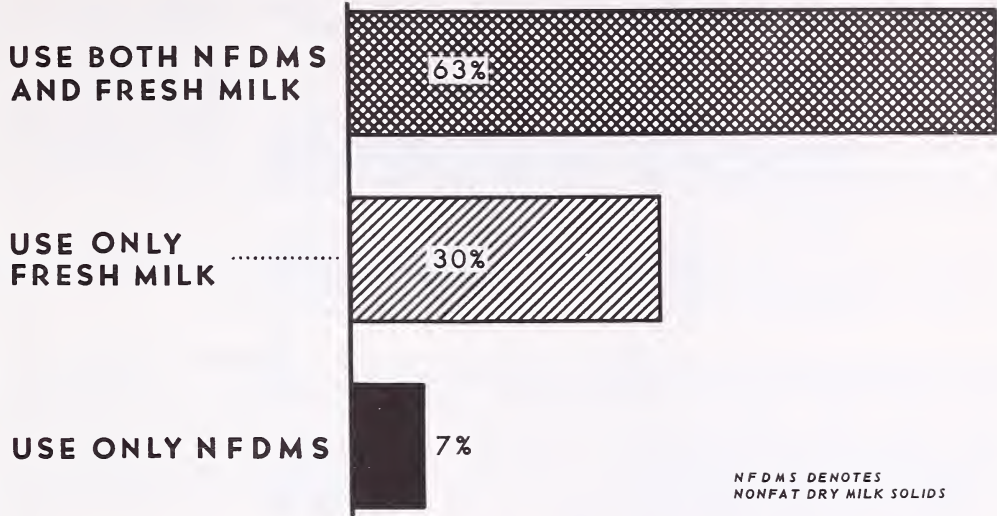
It has been shown that the trend in Memphis has definitely been from regular to homogenized milk (table 5). This was true for users as well as nonusers of nonfat dry milk solids (table 46). In addition, the amount of the dried product being used per family showed a decrease (table 12). One factor in the per household decline in use of nonfat dry milk solids seems to be found in the shift from regular to homogenized milk by households using both the dried product and fluid milk. In these instances nonfat dry milk solids apparently is not considered as a good substitute in cooking for the fluid milk product now being used.

Change in combinations of milk products used from 1952 to 1953. --In the 7-day period prior to the interview, about the same proportion (approximately 15 percent) used nonfat dry milk solids in 1953 as in 1952 (table 5). A shift in the pattern of combination occurred, however, from one year to the other. In the comparable 7-day periods, a smaller proportion of homemakers used the dried product and a fresh milk item in 1953. Among those who did use this combination, the general trend toward homogenized milk and away from regular milk, noted previously, was reflected. The proportion combining homogenized and nonfat dry milk solids was much greater in 1953 than in 1952; the proportion using regular milk and the dried product was considerably less. There were decreases in the proportion who used the dried product in combination with buttermilk and evaporated milk (table 47).

Proportions of milk supplies going into specific uses. --For a given 7-day period the supply of fluid milk products (regular and homogenized) going into Memphis households was mainly consumed by drinking, as would be expected. Approximately 9 out of 10 of the homemakers who used these products reported that 50 percent or more of their supply was used in this way. A much smaller proportion, about 4 out of 10 of the homemakers who used nonfat dry milk solids used a half or more of this product for drinking. Very few homemakers who used the fluid milk items utilized any considerable part of these products for baking and cooking, during the 7-day period. In contrast, substantial proportions of the users of the dried product used more than half of their supply in baking and cooking (tables 48, 49).

Memphis Housewives Report

SUBSTITUTION OF NFDMS FOR FRESH MILK PRODUCTS

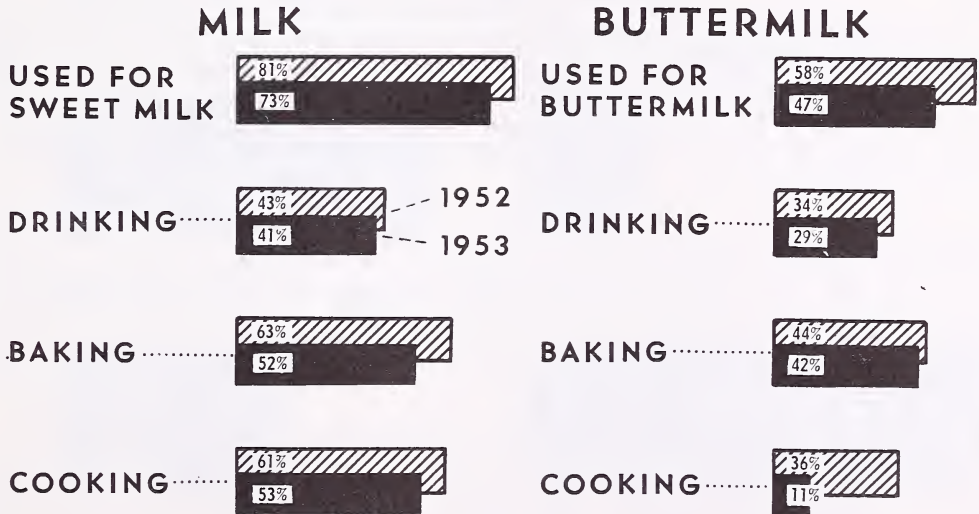


U. S. DEPARTMENT OF AGRICULTURE

NEG. 483 - 54(5) AGRICULTURAL MARKETING SERVICE

Figure 8

USE OF NONFAT DRY MILK SOLIDS FOR MILK AND BUTTERMILK



U. S. DEPARTMENT OF AGRICULTURE

NEG. 482 - 54(3) AGRICULTURAL MARKETING SERVICE

Figure 9

Not only was a large portion of the homemakers' supply of nonfat dry milk solids going into baking, but also there was a definite trend for more homemakers to use the product in this way. Among those who used the dried product both in 1952 and in 1953, the proportion who had not used it for baking in 1952 but did so in 1953 was greater than the proportion who had used the product in this way in 1952 but discontinued this particular use in 1953 (table 50).

Use of nonfat dry milk solids as sweet milk and buttermilk. --When homemakers use nonfat dry milk solids they may reconstitute it as sweet milk or as buttermilk. Many more homemakers did the former than the latter. When the dried product was reconstituted as sweet milk, most homemakers used it for cooking, baking, or drinking. When it was reconstituted as buttermilk, most homemakers used it for baking. Reconstituting nonfat dry milk solids as sweet milk was more characteristic of higher-income families than of low-income ones. It was the lower-income families who were more likely to reconstitute the dried product as buttermilk (tables 51, 52 and fig. 9).

In 1953, as in 1952, about 1 out of 5 of the homemakers who reconstituted nonfat dry milk solids before using it reported difficulties (table 53). The primary difficulty cited each year was that the product did not dissolve satisfactorily.

Reasons for using or not using nonfat dry milk solids. --Almost two-thirds of the homemakers who used nonfat dry milk solids in 1953 said they did so because it was cheaper than fluid milk. Other reasons given were that this product has a low butterfat content which suits dietary needs and is "handy" for cooking and baking (table 54). Nearly two-thirds of the nonusers of the dried product accounted for not using it merely by saying they "just don't like it." A few specifically stated they did not like the taste or flavor of nonfat dry milk solids (table 55).

Nutritive value of nonfat dry milk solids compared to fresh milk. --From 1952 to 1953, there were increases in the proportions of both users and nonusers of the dried product, who felt that this item had less food value than fresh milk. The increase was more pronounced among users of the product than among nonusers. Actually, however, most of the nonusers of the dried product, said they did not know how it compared in nutritive value with fresh milk (table 56 and fig. 10). Those who said that nonfat dry milk solids had less nutritive value than fresh milk attributed this to its lack of cream or butterfat.

Use of condensed and evaporated milk. --In comparison with evaporated milk few homemakers used condensed milk. In a given 7-day period slightly more than half of the homemakers in Memphis used evaporated milk. Family income was related to use of the specific canned milk products. Use of condensed milk was more typical of the higher-income families; use of evaporated milk was more likely to be found in lower-income families (tables 5, 7).

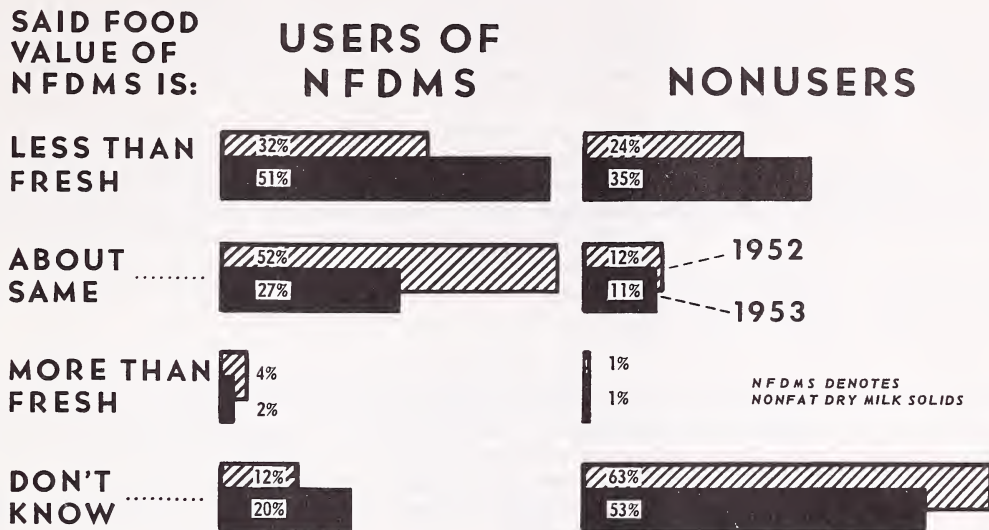
Evaporated milk was most frequently used in coffee or tea and for cooking and baking. Most homemakers said they liked evaporated milk because "it was good" with beverages like coffee, tea, and chocolate. Other reasons given included "it costs less," "it's handy for cooking and baking," and "it keeps longer." Most of those who did not use this product said they "just didn't like it." So few homemakers used condensed milk in a 7-day period that no information of specific uses was obtained (tables 39, 48, 54, 55).

Butter and Oleomargarine

In Memphis nearly twice as many homemakers had used oleomargarine within the last 6 months (1953) as used butter (table 5). In each socio-economic group a much higher proportion of homemakers used oleomargarine than used butter (tables 7, 8, 9). Within a 7-day period those who purchased either butter or oleomargarine bought a median amount of 1 pound of the respective items (table 12).

Compared with Fresh Milk

WHAT HOUSEWIVES BELIEVE ABOUT FOOD VALUES OF NFDMS



U. S. DEPARTMENT OF AGRICULTURE

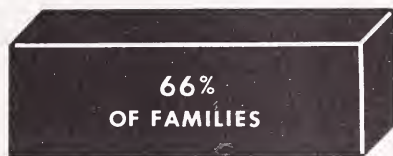
NEG. 481-54(5) AGRICULTURAL MARKETING SERVICE

Figure 10

CONSUMERS WANT MORE BUTTER

Would Use More at Lower Prices

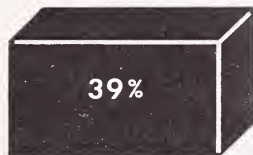
BUTTER



MARGARINE



Actual Use in 1953 *



* BASED ON 7-DAY PERIOD PRIOR TO INTERVIEW

U. S. DEPARTMENT OF AGRICULTURE

NEG. 476-54(3) AGRICULTURAL MARKETING SERVICE

Figure 11

About 7 out of 10 of the homemakers who used butter or oleomargarine said they were using about the same amount as a year ago (1952). However, when a change was reported, slightly higher proportions said they were using more of each product than said they were using less (table 57). The reasons given for these increases (in butter and oleomargarine) were that the families involved were larger and more cooking and baking was being done.

When the users of these respective products were asked, "If the price of butter (or oleomargarine) went down do you think you would use more or not," about 1 out of 10 said they would use more oleomargarine, and about 6 out of 10 said they would use more butter (table 58 and fig. 11).

The role of price as a factor in use of butter and oleomargarine was further seen in the reasons homemakers gave for using or not using these products. The major reason given for using oleomargarine was that it was cheaper; the key reason given for not using butter was that it was too expensive. Those who used butter usually said they preferred its taste or flavor. Among the homemakers who did not use oleomargarine most said merely, "I just don't like it"; others specifically said they did not like the taste of this product (tables 59, 60).

When the homemakers were asked to compare the nutritive value of butter and oleomargarine, most of those who had an opinion said that oleomargarine had less food value. However, a considerable proportion of the homemakers said they did not know whether there was a nutritive difference between the two products (table 61). It was the homemakers with higher income who were most likely to say that butter and oleomargarine were equal in nutritive value; low-income homemakers tended to say that oleomargarine had less food value (table 62).

Among homemakers who used only butter half said that oleomargarine has less food value than butter, but nearly as many said they did not know which product had more food value. For those who used only oleomargarine a smaller proportion than was true in the case of butter, said it had less food value. More of this particular group said the two products were equal in nutritive value and fewer said they did not know. Among the homemakers who used both products, most said that oleomargarine had less food value than butter (table 63).

Many of the homemakers who said that butter and oleomargarine were equal in food value could not give a reason for their statement. Those who did give reasons usually said that the food value was the same because vitamins had been added to oleomargarine. Many could say only that they felt the two products were equal in food value because advertisements of oleomargarine had said this. When homemakers said that oleomargarine had less food value than butter, they usually attributed this to the former being made from vegetable oil and containing no butterfat (table 64).

During the 2 weeks prior to the interview, most homemakers had used only oleomargarine, some had used butter and oleomargarine, and very few had used only butter (table 65). When homemakers used a combination of the two products, oleomargarine was used primarily for baking and cooking while butter was used largely as a table spread (table 66).

Other Milk Products

Products that represent a relatively small share of the total fluid milk sales in Memphis include: Half-and-half, fresh skim, special extra rich milk, Bulgarian butter-milk, whipping cream, chocolate milk, and coffee cream. In September 1953, all of the above listed products accounted for less than 10 percent of the total fluid milk sales in the Memphis market (table 1). During the years 1950-53, trends in the sales of chocolate and special extra rich milk were downward. Sales of the other dairy specialties

remained relatively the same with the exception of fresh skim milk, sales of which tended slightly upward (fig. 4).

The pattern of utilization and purchase of most of these specialty products on a 7-day basis had not changed materially from that found in the previous Memphis study (table 5). Two products--cottage cheese and half-and-half mixture--not included in the 1952 report but receiving increased attention promotion-wise during the last year (1953), warranted a separate analysis.

Cottage cheese. --Although market sales data on cottage cheese were not available, an approximation of the trend in sales was determined from the quantities of class II milk used to manufacture the product.⁴ These data revealed a strong upward trend in the manufacture of cottage cheese for the period October 1950 through September 1953 (fig. 4). Perhaps the more intensive promotional campaign of cottage cheese over the last year had some impact on consumers. This seems to be a reasonable conclusion since the price of the product remained relatively stable.

The consumer study did reflect to some degree the upward trend in the production of cottage cheese. Most of the homemakers interviewed said they were using the same amounts of this product in 1953 as compared to 1952. However, when a change in amounts of cottage cheese was reported, the change was in the direction of using more of the product (table 57). Reasons given by homemakers for using more cottage cheese were primarily "good for diet," "illness," and "making more salads" (table 67).

More than half of the homemakers in Memphis reported the use of cottage cheese in a 6-month period prior to interview. In the 7 days before the interview, however, only 28 percent of the homemakers reported use of this product. Within a 7-day period, the median amount of cottage cheese bought by household purchasers was 12 ounces (one container). (tables 5, 12).

Use of cottage cheese was predominant among households with higher incomes and greater schooling. A significantly smaller proportion of Negro than white families reported the use of cottage cheese (tables 7, 8, 9). The relationships found between percentage of families buying and socio-economic characteristics also prevailed for amounts of the product bought during the 7 days before the interview.

Half-and-half mixture. --That the promotion of half-and-half mixture may have been somewhat effective was suggested in the consumer data. When homemakers did report a change in amount consumed in 1953 compared to 1952, a higher proportion indicated an increase (table 57). For most homemakers, however, the amount used had not changed. Approximately 10 percent of the homemakers in Memphis used half-and-half mixture during the 6 months prior to the interview. For the 7 days before being interviewed, 5 percent said they used this product (table 5). The use of half-and-half mixture tended to be more characteristic of homemakers with higher incomes and educational background (tables 7, 8).

⁴In this instance Class II milk is defined as milk going into manufacturing uses such as butter, ice cream, cottage cheese, and so forth.

A P P E N D I X

Guide to Tables

	Tables
Price as a factor in milk sales.....	1 - 34
Consumer awareness of promotion	35 - 38
Specific uses of fluid milk and nonfat dry milk solids	39 - 56
Butter and oleomargarine	57 - 66
Other milk products	67

TABLE 1.--Percentage distribution of consumption of fluid milk by products, Memphis, by months
October 1950 - September 1953¹

Year and month	Regular (Grade A)	Homo-genized	Butter-milk (Plain)	Butter-milk (Bulgarian)	Chocolate	Special extra rich milk	X-cream ²	XX-cream ³	Half and half ⁴ mixture	Skim (Grade A)	Total
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1950											
October.....	40.0	31.7	13.9	1.9	6.2	4.3	1.3	0.3		0.4	100.0
November.....	39.2	32.7	14.3	1.8	5.7	4.1	1.4	.3	0.1	.4	100.0
December.....	40.4	32.5	14.0	1.7	4.7	4.2	1.5	.5	.1	.4	100.0
1951											
January.....	39.7	33.2	14.3	1.8	4.9	3.9	1.3	.3	.2	.4	100.0
February.....	40.2	33.4	14.0	1.7	4.6	3.8	1.3	.3	.2	.5	100.0
March.....	39.1	34.4	13.7	1.8	4.8	3.7	1.4	.4	.2	.5	100.0
April.....	39.6	34.5	13.8	1.7	4.3	3.7	1.2	.5	.2	.5	100.0
May.....	39.8	34.4	13.4	1.6	4.6	3.7	1.2	.6	.2	.5	100.0
June.....	41.4	33.7	13.5	1.7	3.9	3.7	1.2	.3	.1	.5	100.0
July.....	40.1	35.4	12.9	1.7	4.2	3.7	1.1	.3	.1	.5	100.0
August.....	39.1	36.7	12.6	1.7	4.2	3.7	1.1	.3	.1	.5	100.0
September.....	36.5	37.6	12.5	1.6	6.4	3.4	1.2	.3	.1	.4	100.0
October.....	36.3	39.4	13.1	1.6	4.5	3.1	1.2	.2	.1	.5	100.0
November.....	36.3	39.5	13.3	1.5	3.8	3.3	1.3	.3	.2	.5	100.0
December.....	36.9	39.2	13.0	1.5	3.5	3.3	1.4	.5	.2	.5	100.0
1952											
January.....	36.5	39.7	13.3	1.6	3.7	3.0	1.3	.3	.1	.5	100.0
February.....	36.3	40.4	12.9	1.6	3.5	2.9	1.3	.3	.2	.6	100.0
March.....	38.8	37.1	12.6	1.8	3.6	3.4	1.5	.3	.2	.7	100.0
April.....	38.0	37.6	12.7	1.8	3.8	3.4	1.4	.4	.2	.7	100.0
May.....	38.0	37.6	12.4	1.9	4.0	3.4	1.4	.5	.1	.7	100.0
June.....	39.0	37.2	12.2	2.0	4.1	3.3	1.2	.3	.1	.6	100.0
July.....	38.9	37.8	11.9	2.0	4.0	3.1	1.3	.3	.1	.6	100.0
August.....	37.6	39.3	11.7	1.9	4.1	3.0	1.3	.3	.1	.7	100.0
September.....	35.2	41.3	11.5	1.8	4.9	2.8	1.4	.2	.2	.7	100.0
October.....	34.1	42.7	11.5	1.8	4.6	2.8	1.4	.2	.2	.7	100.0
November.....	31.3	45.9	11.7	1.7	4.0	2.7	1.5	.3	.2	.7	100.0
December.....	30.9	46.9	11.5	1.7	3.6	2.7	1.5	.4	.2	.6	100.0
1953											
January.....	28.8	48.9	11.9	1.7	3.5	2.6	1.3	0.3	0.3	0.7	100.0
February.....	27.2	50.5	11.8	1.8	3.6	2.5	1.4	.3	.2	.7	100.0
March.....	25.9	51.7	11.8	1.8	3.8	2.4	1.3	.3	.3	.7	100.0
April.....	24.8	52.6	12.1	1.7	3.7	2.4	1.3	.4	.3	.7	100.0
May.....	24.4	53.2	12.0	1.7	3.6	2.4	1.3	.4	.3	.7	100.0
June.....	25.5	52.5	11.7	1.9	3.7	2.4	1.1	.3	.2	.7	100.0

See footnotes at end of table.

TABLE 1.--Percentage distribution of consumption of fluid milk by products, Memphis, by months
 October 1950 - September 1953¹--Continued

Year and month	Regular (Grade A)	Homogenized	Butter-milk (Plain)	Butter-milk Bulgarian	Chocolate	Special extra rich milk	X-cream ²	XX-cream ³	Half and half mix- ⁴ ture	Skim (Grade A)	Total
1953--Continued	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
July.....	23.8	55.2	11.8	1.6	3.1	2.3	1.2	.3	.2	.5	100.0
August.....	22.6	56.3	12.1	1.6	3.2	2.1	1.2	.2	.2	.5	100.0
September....	20.5	58.6	11.4	1.5	3.9	2.0	1.2	.2	.2	.5	100.0

¹ Percentages based on actual monthly sale of each product.

² Contains 17.99 to 26.99 percent butterfat.

³ Contains over 27 percent butterfat.

⁴ Contains 6 to 12 percent butterfat.

⁵ Less than 0.05 percent.

TABLE 2.—Retail price of specified dairy products, Memphis, specified months, 1952 and 1953¹

Product	August 1, 1952	November 1, 1952	March 1, 1953	September 1, 1953
Regular (Grade A) milk	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Quarts (glass).....	23	22	21	22
Quarts (paper).....	24 1/2	22	21	22
Half-gallon (paper).....	47 1/2	43	41	(²)
Homogenized milk				
Quarts (glass).....	24	22	21	22
Quarts (paper).....	25 1/2	22	21	22
Half-gallon (paper).....	49 1/2	43	41	41
X-cream (Coffee cream)				
Quarts.....	68	66	62	70
Half-pints.....	21 1/2	21	20	21
XX-cream (Whipping)				
Half-pints.....	37 1/2	37	35	37
Plain (Skim) buttermilk				
Quarts (glass).....	16	15	14	15
Quarts (paper).....	17 1/2	15	14	15
Bulgarian buttermilk				
Quarts.....	24	23	22	23
Chocolate milk				
Quarts.....	23 1/2	23	23	24
Skim (Grade A) milk				
Quarts.....	18	17	16	17
Cottage cheese (Cream style)				
Packages (12 oz.).....	20	20	20	22
Quarts (2 pounds).....	45	45	45	55

¹ Retail prices reported in this table reflect the price paid by consumers for milk delivered to the home. Most chain store prices after November 1, 1952, were generally 1 cent lower than the home delivered price. The retail prices presented do not show "week-end specials" prevalent in the Memphis market during the period after November 1, 1952.

² Sale of regular milk in half-gallon containers was discontinued prior to September 1, 1953.

TABLE 3.--Percentage distribution of users and nonusers of NFDMS¹ in 1953, by awareness of price changes within the last year for specified milk products

Item	Users of NFDMS	Nonusers of NFDMS
Regular milk:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	7	6
Prices remained the same.....	21	26
Prices have increased.....	39	37
Don't know.....	33	31
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357
Homogenized milk:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	6	6
Prices remained the same.....	25	25
Prices have increased.....	45	37
Don't know.....	24	32
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357
Buttermilk:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	4	5
Prices remained the same.....	28	30
Prices have increased.....	34	29
Don't know.....	34	36
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357
Half-and-half mixture:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	2	3
Prices remained the same.....	11	14
Prices have increased.....	14	13
Don't know.....	73	70
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357
Coffee cream:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	1	3
Prices remained the same.....	16	15
Prices have increased.....	16	15
Don't know.....	67	67
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

See Footnote at end of table.

TABLE 3.--Percentage distribution of users and nonusers of NFDMS¹ in 1953, by awareness of price changes within the last year for specified milk products--Continued

Item	Users of NFDMS	Nonusers of NFDMS
Whipping cream:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	1	3
Prices remained the same.....	18	17
Prices have increased.....	20	19
Don't know.....	61	61
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357
Cottage cheese:	<i>Percent</i>	<i>Percent</i>
Prices have dropped.....	1	3
Prices remained the same.....	27	23
Prices have increased.....	14	13
Don't know.....	58	61
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

¹ NFDMS is used in this and subsequent tables as an abbreviation of the product name, nonfat dry milk solids.

TABLE 4.--Indexes of seasonal variation in the sales of Class I, homogenized, regular (Grade A), buttermilk, and chocolate milk¹

Month	Indexes ²				
	Class I	Homogenized ³	Regular (Grade A)	Buttermilk	Chocolate
January.....	101.7	100.6	101.2	106.9	84.0
February.....	101.8	99.8	101.7	105.9	83.6
March.....	102.6	99.5	100.6	106.3	86.6
April.....	100.2	97.2	99.1	103.2	86.3
May.....	97.8	96.4	97.5	98.6	94.6
June.....	94.3	96.6	97.5	95.1	105.5
July.....	93.7	96.0	96.7	89.0	113.7
August.....	95.7	99.0	97.6	89.7	122.5
September.....	102.3	103.4	101.0	96.9	120.6
October.....	105.8	105.5	103.7	102.1	114.7
November.....	103.1	104.1	101.3	104.5	99.0
December.....	101.0	101.9	101.5	101.8	88.9

¹ These indexes were developed by M. Lloyd Downen, Associate Agricultural Economist, Agricultural Experiment Station, University of Tennessee, Knoxville, Tennessee.

² The index for Class I milk is based on units of less than 1 gallon and the remaining ones are based on quarts.

³ Base period for the index of consumption of homogenized milk is from May 1948 through April 1952, whereas the base period for all other indexes extends from July 1946 through June 1952.

TABLE 5.--Percentage distribution of households using products by specified periods in 1952 and 1953

Item	Households using product in last--			
	6 months		7 days	
	1952	1953	1952	1953
Fresh whole milk:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Regular.....	52	46	49	36
Homogenized.....	50	71	46	63
Premium.....	6	8	4	4
Total.....	95	95	92	91
Buttermilk:				
Plain.....	56	67	47	47
Bulgarian.....	10	22	6	9
Total.....	63	75	51	53
Chocolate milk.....	20	31	11	12
Cream:				
Coffee (X).....	18	20	12	10
Whipping (XX).....	22	41	7	10
Total.....	33	46	17	18
Half-and-half mixture.....	(²)	10	(²)	5
Fresh skim milk.....	3	6	2	1
Canned milk:				
Condensed.....	18	31	7	10
Evaporated.....	70	74	58	58
Total.....	73	81	62	60
Nonfat dry milk solids.....	19	26	12	15
Butter.....	(²)	47	(²)	39
Oleomargarine.....	(²)	89	(²)	83
Cottage cheese.....	(²)	58	(²)	28
Homemakers reporting.....	³ <i>Number</i> 1649	³ <i>Number</i> 1535	³ <i>Number</i> 1649	³ <i>Number</i> 1535

¹ Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

² Product not included in 1952 survey.

³ All data relating to homemakers, in this report will hereafter be followed by the sign #, to indicate findings based on weighted returns. Weights used: 1952 dwelling unit users of NFDMS weighted 1.00; 1952 dwelling unit nonusers of NFDMS weighted 4.36.

TABLE 6.--Percentage distribution of users and nonusers of NFDMS in 1953 by comparative advantage of regular milk and homogenized milk

Item	Users of NFDMS	Nonusers of NFDMS
Advantages of regular milk compared to homogenized milk are:		
Can use cream off top.....	Percent ¹ 32	Percent ¹ 31
Tastes better.....	4	4
Cheaper for cooking, baking, general use.....	3	2
Richer, more food value.....	1	3
Homogenized too rich for our needs.....	1	(2)
Stays fresh longer.....	(2)	(2)
More versatile, can use for more purposes.....	(2)	--
General approval, just like it better.....	(2)	1
Other replies.....	(2)	(2)
Mention advantages.....	41	39
Do not mention advantages.....	59	61
Total.....	100	100
Advantages of homogenized milk compared to regular milk are:		
Cream more evenly distributed.....	48	47
Richer, more butterfat.....	19	16
Tastes better.....	15	13
Keeps better, longer.....	1	3
Easier to digest.....	(2)	13
General approval, just like it.....	(2)	1
Other replies.....	1	1
Mention advantages.....	72	69
Do not mention advantages.....	28	31
Total.....	100	100
Homemakers.....	Number 214	Number 357

¹ Percentages add to more than these subtotals because some homemakers gave more than one advantage.

² Less than 0.5 percent.

TABLE 7.--Percentage distribution of users and nonusers of NFDMS in 1953 by products bought in last 6 months and by family income

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Fresh whole milk:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Regular.....	49	44	52	42	50	47
Homogenized.....	83	75	61	79	67	56
Premium.....	6	1	4	13	6	7
Total.....	100	95	92	100	95	87
Buttermilk:						
Plain.....	65	76	93	55	67	43
Bulgarian.....	15	21	21	28	16	21
Total.....	67	77	93	69	76	84
Chocolate milk.....	34	43	26	30	29	31
Cream:						
Coffee (X).....	25	14	2	32	13	13
Whipping (XX).....	59	31	23	60	33	21
Total.....	66	39	25	65	40	24
Half-and-half mixture.....	12	1	6	18	9	3
Fresh skim milk.....	12	8	9	4	5	5
Canned milk:						
Condensed.....	50	42	31	30	30	17
Evaporated.....	77	76	88	64	76	84
Total.....	93	83	88	71	79	88
Butter.....	37	45	18	53	48	53
Oleomargarine.....	99	96	100	86	90	79
Cottage cheese.....	84	61	47	73	53	31
Homemakers.....	<i>Number</i> 148#	<i>Number</i> 155#	<i>Number</i> 99#	<i>Number</i> 501#	<i>Number</i> 334#	<i>Number</i> 298#

¹ Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

TABLE 8.--Percentage distribution of users and nonusers of NFDMS in 1953 by products bought in last 6 months and by educational levels

Item ¹	Users of NFDMS			Nonusers of NFDMS		
	Grammar school	High school	College	Grammar school	High school	College
Fresh whole milk:	<i>Percent²</i>	<i>Percent²</i>	<i>Percent²</i>	<i>Percent²</i>	<i>Percent²</i>	<i>Percent²</i>
Regular.....	54	43	60	58	44	33
Homogenized.....	57	81	91	50	74	85
Premium.....	5	3	--	3	7	16
Total.....	89	99	98	88	98	100
Buttermilk:						
Plain.....	86	76	58	84	62	48
Bulgarian.....	17	22	9	16	28	21
Total.....	87	77	60	88	74	63
Chocolate milk.....	25	37	32	24	36	28
Cream:						
Coffee (X).....	1	16	49	7	20	39
Whipping (XX).....	12	48	66	16	46	63
Total.....	13	53	82	19	51	71
Half-and-half mixture.....	1	5	26	3	15	16
Fresh skim milk.....	13	9	7	6	3	8
Canned milk:						
Condensed.....	31	42	75	25	25	34
Evaporated.....	88	73	86	88	71	62
Total.....	90	85	100	92	74	71
Butter.....	47	31	35	66	44	52
Oleomargarine.....	94	100	98	78	88	93
Cottage cheese.....	32	76	98	20	62	84
Homemakers.....	<i>Number</i> 105#	<i>Number</i> 241#	<i>Number</i> 45#	<i>Number</i> 285#	<i>Number</i> 554#	<i>Number</i> 249#

¹ Education not reported by 26 homemakers: 11 NFDMS users and 15 nonusers of NFDMS.

² Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

TABLE 9.--Percentage distribution of users and nonusers of NFDMS in 1953 by products bought in last 6 months and by race

Item	Users of NFDMS		Nonusers of NFDMS	
	White	Negro	White	Negro
Fresh whole milk:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Regular.....	47	51	39	60
Homogenized.....	77	69	77	49
Premium.....	3	4	12	2
Total.....	98	93	98	89
Buttermilk:				
Plain.....	70	96	56	85
Bulgarian.....	17	26	26	15
Total.....	72	97	69	90
Chocolate milk.....	34	41	31	49
Cream:				
Coffee (X).....	20	1	26	3
Whipping (XX).....	46	16	51	5
Total.....	54	17	56	72
Half-and-half mixture.....	8	1	15	3
Fresh skim milk.....	6	20	5	5
Canned milk:				
Condensed.....	43	39	29	21
Evaporated.....	73	95	65	94
Total.....	86	95	71	95
Butter.....	29	54	49	60
Oleomargarine.....	98	98	88	79
Cottage cheese.....	76	35	69	22
Homemakers.....	<i>Number</i> 306#	<i>Number</i> 97#	<i>Number</i> 823#	<i>Number</i> 310#

¹ Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

TABLE 10.--Percentage distribution of users and nonusers of NFDMS in 1953 by specified family characteristics¹

Item	Users of NFDMS	Nonusers of NFDMS
Income ² :	<i>Percent</i>	<i>Percent</i>
High.....	37	44
Middle.....	38	30
Low.....	25	26
Total.....	100	100
Race:		
White.....	76	73
Negro.....	24	27
Total.....	100	100
Family composition:		
No minors in family.....	32	42
Children 12 years or less.....	57	45
Children 13-20.....	28	19
Total.....	(³)	(³)
Size of family eating in household:		
1 - 2 people.....	26	37
3 - 4 people.....	45	48
5 or more.....	29	15
Total.....	100	100
Homemakers.....	<i>Number</i> 402#	<i>Number</i> 1133#

¹ Based on use in the 6-month period preceding the interview.

² The range of weekly gross family income within each group is as follows:
Low income - \$49 and less; middle income - \$50-99; high income - \$100 and over.

³ Percentages add to more than 100 because some families had children in more than one age group.

TABLE 11.--Percentage distribution of users and nonusers of NFDMS in 1953 by products bought in last 6 months and by family composition

Item	Users of NFDMS			Nonusers of NFDMS		
	Adults only	Families with children		Adults only	Families with children	
		12 years or less	13-20 years		12 years or less	13-20 years
Fresh whole milk:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Regular.....	45	59	87	44	39	55
Homogenized.....	66	83	74	61	79	69
Premium.....	2	3	4	12	4	11
Total.....	92	97	96	92	98	97
Buttermilk:						
Plain.....	76	75	79	64	63	74
Bulgarian.....	9	18	22	20	25	26
Total.....	77	76	81	74	74	82
Chocolate milk	18	45	49	16	44	29
Cream:						
Coffee (X).....	30	7	8	25	16	20
Whipping (XX).....	40	45	17	38	45	37
Total.....	48	48	25	44	47	46
Half-and-half mixture.....	14	3	2	11	11	14
Fresh skim milk.....	10	9	13	1	8	8
Canned milk:						
Condensed.....	37	46	45	24	25	28
Evaporated.....	77	82	78	72	73	70
Total.....	91	95	83	78	78	73
Butter.....	40	30	32	52	48	54
Oleomargarine.....	98	98	96	80	89	93
Cottage cheese.....	64	58	67	50	60	58
Homemakers.....	<i>Number</i> 129#	<i>Number</i> 228#	<i>Number</i> 113#	<i>Number</i> 480#	<i>Number</i> 515#	<i>Number</i> 213#

¹ Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

TABLE 12.--Median amount of a specific product bought in last 7 days by users of the product within the last 7 days in 1952 and 1953

Item	Median amount bought in last 7 days in--	
	1952	1953
Regular.....	<i>Quarts</i> 4.6	<i>Quarts</i> 4.0
Homogenized.....	5.6	6.0
Nonfat dry milk solids.....	¹ 5.3	¹ 4.4
Butter.....	<i>Pounds</i> (2)	<i>Pounds</i> 1.0
Oleomargarine.....	(2)	1.0
Cottage cheese.....	<i>Ounces</i> (2)	<i>Ounces</i> 12.0
Homemakers reporting.....	<i>Number</i> 1,649	<i>Number</i> 1,535

¹ Conversion factor: 3.2 ounces of nonfat dry milk solids = 1 quart of fluid skim milk.

² Data were not obtained in the 1952 survey.

TABLE 13.--Percentage distribution of users of NFDMS in 1952 by change in amount of NFDMS used in 1952 and by change in amount used since 1952

Item	Users of NFDMS who in 1952 were using, "as time passes": ¹		
	More NFDMS	Same amount of NFDMS	Less NFDMS
Amount used in 1953 compared to 1952:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Same.....	--	19	(²)
More.....	35	24	(²)
Less.....	59	43	(²)
Don't know.....	6	14	(²)
Total.....	100	100	100
Homemakers.....	<i>Number</i> 31	<i>Number</i> 86	<i>Number</i> 21

¹ Four homemakers who did not know how much they were using "as time passes" in 1952 are excluded from table.

² Too few cases for analysis.

TABLE 14.--Change in amount of specific milk products bought in last 7 days, 1953 compared to 1952 by users and nonusers of NFDMS¹

Item ²	Users of NFDMS			Nonusers of NFDMS		
	Households	Change in purchases in 1953 from 1952		Households	Change in purchases in 1953 from 1952	
		Percentage	Average amount		Percentage	Average amount
Purchases in 1953 compared with 1952						
Fresh whole milk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	44	80.7	3.9	39	62.7	3.8
Same.....	22	--	--	22	--	--
Less.....	34	38.4	3.1	39	38.2	3.4
Net change	--	+10.4	+ .7	--	+1.7	+ .1
Homemakers.....	<i>Number</i>			<i>Number</i>		
	169			240		
Regular milk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	31	105.6	3.1	30	125.5	4.1
Same.....	12	--	--	15	--	--
Less.....	57	73.4	4.7	55	71.3	5.1
Net change.....	--	-31.5	-1.8	--	-24.4	-1.6
Homemakers.....	<i>Number</i>			<i>Number</i>		
	117			145		
Homogenized milk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	64	300.7	5.7	52	209.9	6.0
Same.....	10	--	--	14	--	--
Less.....	26	49.1	3.4	34	50.7	4.0
Net change.....	--	+74.7	-2.8	--	+36.9	+1.8
Homemakers.....	<i>Number</i>			<i>Number</i>		
	121			161		
Buttermilk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	41	170.7	1.9	33	211.5	1.9
Same.....	26	--	--	28	--	--
Less.....	33	63.0	1.5	39	68.3	1.9
Net change	--	+16.5	+ .3	--	- 4.6	- .1
Homemakers.....	<i>Number</i>			<i>Number</i>		
	126			170		

See footnotes at end of table.

TABLE 14.--Change in amount of specific milk products bought in last 7 days, 1953 compared to 1952 by users and nonusers of NFDMS¹--Continued

Item ²	Users of NFDMS			Nonusers of NFDMS		
	Households	Change in purchases in 1953 from 1952		Households	Change in purchases in 1953 from 1952	
		Percentage	Average amount		Percentage	Average amount
Plain buttermilk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	40	158.2	1.8	37	252.4	1.9
Same.....	24	--	--	28	--	--
Less.....	36	66.7	1.5	35	71.6	1.8
Net change.....	--	+11.3	+2	--	+3.9	+1
Homemakers.....	<i>Number</i> 121			<i>Number</i> 147		
Bulgarian buttermilk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	(3)	(3)	(3)	34	525.0	1.6
Same.....	(3)	--	--	11	--	--
Less.....	(3)	(3)	(3)	55	81.5	2.1
Net change.....	--	(3)	(3)	--	-35.9	-6
Homemakers.....	<i>Number</i> 18			<i>Number</i> 38		
Chocolate milk:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	62	920.0	2.0	53	925.0	1.9
Same.....	5	--	--	3	--	--
Less.....	33	75.7	2.1	44	100.0	1.9
Net change.....	--	+52.5	+6	--	+20.0	+2
Homemakers.....	<i>Number</i> 37			<i>Number</i> 36		
Nonfat dry milk solids:	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>	<i>Percent</i>	<i>Percent</i>	<i>Quarts</i>
More.....	44	305.1	3.9	--	--	--
Same.....	12	--	--	--	--	--
Less.....	44	68.9	3.9	100	100.0	3.2
Net change.....	--	0	0	--	-100.0	-3.2
Homemakers.....	<i>Number</i> 139			<i>Number</i> 39		
Coffee cream:	<i>Percent</i>	<i>Percent</i>	<i>Pints</i>	<i>Percent</i>	<i>Percent</i>	<i>Pints</i>
More.....	(3)	(3)	(3)	36	1400.0	3.3
Same.....	(3)	--	--	15	--	--
Less.....	(3)	(3)	(3)	49	69.0	2.1
Net change.....	--	(3)	(3)	--	+7.6	+1
Homemakers.....	<i>Number</i> 15			<i>Number</i> 47		

TABLE 14.--Change in amount of specific milk products bought in last 7 days, 1953 compared to 1952 by users and nonusers of NFDMS¹--Continued

Item ²	Users of NFDMS			Nonusers of NFDMS		
	House-holds	Change in purchases in 1953 from 1952		House-holds	Change in purchases in 1953 from 1952	
		Percentage	Average amount		Percentage	Average amount
Whipping cream:	<i>Percent</i>	<i>Percent</i>	<i>Pints</i>	<i>Percent</i>	<i>Percent</i>	<i>Pints</i>
More.....	(3)	(3)	(3)	54	1200.0	1.6
Same.....	(3)	--	--	7	--	--
Less.....	(3)	(3)	(3)	39	93.3	1.8
Net change.....	--	(3)	(3)	--	+ 21.6	+ .2
Homemakers	<i>Number</i> 24			<i>Number</i> 41		

¹ Comparisons are based only on those homemakers who were contacted both in 1952 and 1953.

² Data for canned milk were not presented in the 1952 report. Data for half-and-half mixture, butter, oleomargarine, and cottage cheese were not obtained in 1952.

³ Too few cases for analysis.

TABLE 15.--Percentage distribution of users and nonusers of NFDMS in 1953 by sex and age group of household member drinking most of milk

Households drinking milk	Users of NFDMS	Nonusers of NFDMS
Drinking most milk		
Adults and children in household:		
Sex		
Male	<i>Percent</i> 47	<i>Percent</i> 43
Female.....	18	24
Both drink equally.....	25	24
Don't know.....	10	9
Total.....	100	100
Age		
Adult.....	9	9
Child.....	68	70
Both drink equally.....	13	14
Don't know.....	10	7
Total.....	100	100
Adults only		
Male.....	26	40
Female.....	26	35
Both.....	29	17
Don't.....	19	8
Total.....	100	100
Families reporting		
Without children.....	<i>Number</i> 65	<i>Number</i> 127
With children.....	139	206

TABLE 16.--Sales and weighted average retail price per quart paid for fluid milk, Memphis, by months, April-September 1952 and 1953¹

Month	1952		1953	
	Sales	Weighted average price ²	Sales	Weighted average price ²
	<i>Quarts</i>	<i>Cents</i>	<i>Quarts</i>	<i>Cents</i>
April.....	3,934,315	22.7	4,294,324	21.2
May.....	4,056,015	22.8	4,284,437	21.1
June.....	3,643,970	22.6	3,994,711	21.0
July.....	3,905,823	22.6	4,088,061	21.0
August.....	3,876,199	23.6	4,118,494	20.9
September.....	4,159,290	23.7	4,373,517	22.1
April-September average.....	3,929,269	23.0	4,192,257	21.2

¹ Includes in-area sales only.

² Weighted by price of milk sold in glass and paper containers.

TABLE 17.--Percentage distribution of users and nonusers of NFDMS in 1953, by preference for size of container of specified milk products

Item	Users of NFDMS		Nonusers of NFDMS	
	Regular milk	Homogenized milk	Regular milk	Homogenized milk
Preference by size of container:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Quart.....	78	60	82	67
1 Half gallon.....	13	31	11	23
Gallon.....	4	5	1	2
No preference.....	5	4	6	8
Total.....	100	100	100	100
Homemakers.....	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
	111	156	166	245

TABLE 18.--Percentage distribution of users and nonusers of NFDMS in 1953 by preference for size of container of homogenized milk and by number of people eating in a household

Item	Users of NFDMS			Nonusers of NFDMS		
	1-2 people	3-4 people	5 or more	1-2 people	3-4 people	5 or more
Preference by size of container:						
Homogenized milk:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Quart.....	81	59	43	70	67	62
Half gallon.....	12	33	46	24	22	26
Gallon.....	2	4	9	1	2	5
No preference.....	5	4	2	5	9	7
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 42	<i>Number</i> 70	<i>Number</i> 44	<i>Number</i> 74	<i>Number</i> 128	<i>Number</i> 43

TABLE 19.--Percentage distribution of users and nonusers of NFDMS in 1953, by reasons given for preference of half-gallon size container for fresh whole milk

Item	Users of NFDMS	Nonusers of NFDMS
Reasons given for preference of half-gallon size container:	<i>Percent</i> ¹	<i>Percent</i> ¹
Cheaper.....	35	27
Size best for quantity used by family.....	25	39
Make fewer trips to store.....	21	23
Size handier for storage.....	15	31
Easier to pour, carry.....	4	8
Just used to it, habit.....	2	--
Other replies.....	6	--
Don't know, no reason.....	2	3
Homemakers.....	<i>Number</i> 52	<i>Number</i> 62

¹ Percentages add to more than 100 because many homemakers gave more than one reason for their stated preference.

TABLE 20.--Percentage distribution of users and nonusers of NFDMS in 1953, by reasons given for preference of quart size container for fresh whole milk

Item	Users of NFDMS		Nonusers of NFDMS	
	Percent ¹		Percent ¹	
Reasons given for preference of quart size container:				
Size best for quantity used by family.....	38		50	
Size handier for storage.....	28		16	
Just used to it, habit.....	17		15	
It's fresher in quart size.....	12		10	
Handier to pour, carry.....	8		13	
It's cheaper.....	4		19	
Just like it, general approval.....	1		2	
Good size for judging measurement.....	--		2	
Fewer trips to store.....	--		(²)	
Other replies.....	4		4	
Don't know.....	4		1	
	<i>Number</i>		<i>Number</i>	
Homemakers.....	138		257	

¹ Percentages add to more than 100 because many homemakers gave more than one reason for their stated preference.

² Less than 0.5 percent.

TABLE 21.--Percentage distribution of users and nonusers of NFDMS in 1952 and 1953 by preference for type of container for fresh whole milk

Item	Users of NFDMS		Nonusers of NFDMS	
	1952	1953	1952	1953
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Prefer carton.....	21	34	13	29
Prefer bottle.....	67	55	74	62
No preference.....	12	11	13	9
Total.....	100	100	100	100
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Homemakers.....	287	204	210	341

TABLE 22.--Percentage distribution of users and nonusers of NFDMS in 1953, by reasons given for preference of carton to bottle for milk products

Item	Users of NFDMS	Nonusers of NFDMS
Reasons given for preference of paper carton over glass bottle:	<i>Percent</i> ¹	<i>Percent</i> ¹
Cartons can be disposed of easily.....	83	85
Convenience, easy to use and store.....	18	12
Sanitary, cleaner.....	3	5
Other reasons.....	17	16
No answer.....	4	1
Homemakers.....	<i>Number</i> 77	<i>Number</i> 104

¹ Percentages add to more than 100 because some homemakers gave more than one reason.

TABLE 23.--Percentage distribution of users and nonusers of NFDMS in 1953, by reasons given for preference of bottle to carton for milk products

Item	Users of NFDMS	Nonusers of NFDMS
Reasons given for preference of glass bottle over paper carton:	<i>Percent</i> ¹	<i>Percent</i> ¹
Don't like taste, flavor, or smell of cartons.....	38	30
Handier, easier to use.....	17	23
Habit.....	8	8
Cartons tear, crush, and leak.....	21	15
Fresher, keeps better.....	12	9
Like to see contents.....	10	15
Sanitary, cleaner.....	15	12
Cheaper, more in bottle.....	4	4
Miscellaneous reasons.....	3	16
Don't know, no reason.....	--	1
Homemakers.....	<i>Number</i> 117	<i>Number</i> 222

¹ Percentages add to more than 100 because many homemakers gave more than one reason for their stated preference.

TABLE 24.--Percentage distribution of users and nonusers of NFDMS in 1953 by method of buying milk products in 1952 and in 1953

Item	Users of NFDMS		Nonusers of NFDMS	
	1952	1953	1952	1953
Buy regularly by home delivery:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Fresh whole milk.....	45	42	50	44
Chocolate milk.....	11	15	8	13
Cream.....	15	21	23	25
Buttermilk.....	29	31	30	30
Butter.....	(²)	11	(²)	19
Total.....	45	42	51	45
Buy regularly at stores:				
Fresh whole milk.....	49	54	46	51
Chocolate milk.....	12	17	12	16
Cream.....	11	20	13	18
Buttermilk.....	40	47	36	45
Butter.....	(²)	22	(²)	29
Total.....	51	57	48	54
Do not use any of above products.....	4	1	1	1
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 306	<i>Number</i> 214	<i>Number</i> 308	<i>Number</i> 357

¹ Percentages add to more than their subtotals because some homemakers obtained more than one product from a given service.

² Data not obtained for butter in 1952.

TABLE 25.--Percentage distribution of users and nonusers of NFDMS in 1953 by family income and by method of buying milk products

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Bought regularly by home delivery.....	<i>Percent</i> 52	<i>Percent</i> 40	<i>Percent</i> 30	<i>Percent</i> 66	<i>Percent</i> 37	<i>Percent</i> 22
Bought regularly at stores.....	48	60	70	34	63	78
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 84	<i>Number</i> 67	<i>Number</i> 61	<i>Number</i> 148	<i>Number</i> 108	<i>Number</i> 96

TABLE 26.--Percentage distribution of amount of fresh whole milk bought in last 7 days by users and nonusers of NFDMS in 1953 by method of buying milk products

Item	Users of NFDMS		Nonusers of NFDMS	
	Bought regularly by home delivery	Bought regularly at stores	Bought regularly by home delivery	Bought regularly at stores
Quantity bought:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
1 quart or less.....	-	7	2	15
1.1 - 3 quarts	10	30	7	28
3.1 - 5 quarts	9	22	14	15
5.1 - 7 quarts.....	27	17	16	18
7.1 - 9 quarts.....	13	4	17	7
9.1 - 11 quarts.....	7	5	17	4
11.1 - 13 quarts.....	10	2	8	5
13.1 quarts and over.....	24	13	19	10
Total.....	100	100	100	100
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Homemakers.....	87	108	155	168

TABLE 27.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinions about prices of fresh milk sold by home delivery and sold in retail stores

Item	Users of NFDMS	Nonusers of NFDMS
	<i>Percent</i>	<i>Percent</i>
Should pay more for home delivery.....	34	43
Should not pay more for home delivery.....	49	45
Don't know.....	17	12
Total.....	100	100
	<i>Number</i>	<i>Number</i>
Homemakers.....	214	357

TABLE 28.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinions about prices of fresh milk sold by home delivery and sold in retail stores, by method of buying milk products¹

Item	Users of NFDMS		Nonusers of NFDMS	
	Buy regularly by home delivery	Buy regularly at stores	Buy regularly by home delivery	Buy regularly at stores
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Should pay more for home delivery.....	36	34	45	42
Should not pay more for home delivery.....	58	43	52	41
Don't know.....	6	23	3	17
Total.....	100	100	100	100
	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
Homemakers.....	89	115	158	183

¹ Data based upon homemakers who used fresh whole milk in last 6 months.

TABLE 29.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for opinions about prices of fresh milk sold by home delivery and sold in retail stores

Item	Users of NFDMS	Nonusers of NFDMS
Reasons for paying more for home delivery:	<i>Percent</i> ¹	<i>Percent</i> ¹
Because of added cost, drivers salary.....	53	48
Should pay more for the convenience.....	45	54
Because of difficulties of delivery in dif- ferent territories.....	8	5
Because milk is fresher.....	3	--
Other replies.....	1	--
	<i>Number</i>	<i>Number</i>
Homemakers.....	72	153
Reasons for not paying more for home delivery:	<i>Percent</i> ¹	<i>Percent</i> ¹
Because milk must be delivered to store anyway.	21	25
Milk company makes enough profit to defer cost of delivery.....	20	18
Because it's just as convenient to go to the store.....	14	10
Grocery's profit should pay for delivery.....	11	6
Because the stores will deliver anyway.....	7	7
The milk companies would lose customers, people would not pay more.....	3	3
Company which delivers to home has less com- petition.....	2	7
Prices should be same, no particular reason given.....	9	19
Other replies.....	2	2
Don't know why.....	12	6
	<i>Number</i>	<i>Number</i>
Homemakers.....	105	161

¹ Percentages total more than 100 because some homemakers gave more than one reason.

TABLE 30.--Percentage distribution of users and nonusers of NFDMS in 1953, by replies regarding satisfaction with amounts of specified products being used

Item	Users of NFDMS	Nonusers of NFDMS
	<i>Percent</i>	<i>Percent</i>
If price of fresh whole milk were lower:		
Would use more.....	48	32
Depends (qualified).....	--	2
Would use same amount.....	51	64
No opinion.....	1	2
Total.....	100	100
Homemakers.....	<i>Number</i> 190	<i>Number</i> 312
	<i>Percent</i>	<i>Percent</i>
If price of nonfat dry skim milk solids were lower:		
Would use more.....	14	--
Depends (qualified).....	2	--
Would use same amount.....	81	--
No opinion.....	3	--
Total.....	100	--
Homemakers.....	<i>Number</i> 214	<i>Number</i> --

TABLE 31.--Percentage distribution of users and nonusers of NFDMS in 1953, by family income, and by satisfaction with amounts of specified products being used

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
If price of fresh whole milk were lower:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Would use more.....	38	56	55	21	33	50
Depends (qualified).....	--	--	--	1	1	4
Would use same amount.....	61	44	45	78	62	45
No opinion.....	1	--	--	--	4	1
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 80	<i>Number</i> 63	<i>Number</i> 47	<i>Number</i> 133	<i>Number</i> 95	<i>Number</i> 84
If price of nonfat dry milk solids were lower:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Would use more.....	7	14	22	--	--	--
Depends (qualified).....	1	6	--	--	--	--
Would use same amount.....	91	76	75	--	--	--
No opinion.....	1	4	3	--	--	--
Total.....	100	100	100	--	--	--
Homemakers.....	<i>Number</i> 84	<i>Number</i> 71	<i>Number</i> 59	<i>Number</i> --	<i>Number</i> --	<i>Number</i> --
If price of butter were lower:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Would use more.....	64	66	71	54	50	54
Depends (qualified).....	--	--	--	--	--	--
Would use same amount.....	36	34	29	45	50	40
No opinion.....	--	--	--	1	--	2
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 28	<i>Number</i> 29	<i>Number</i> 14	<i>Number</i> 74	<i>Number</i> 50	<i>Number</i> 48

TABLE 32.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinion as to how milk prices are decided

Item	Users of NFDMS	Nonusers of NFDMS
Opinions as to how milk prices are decided:	<i>Percent</i> ¹	<i>Percent</i> ¹
Cost of operation.....	26	25
Dairy association, board.....	10	9
Dairy, dairy head decides.....	9	9
Milk companies decide.....	9	6
Supply and demand.....	8	13
Farmer decides.....	4	5
Retailer, store decides.....	3	1
Government regulates.....	2	3
Labor union determines.....	1	(²)
Other replies.....	3	2
Don't know.....	35	40
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

¹ Percentages total more than 100 because some homemakers gave more than one opinion.

² Less than 0.5 percent.

TABLE 33.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinions as to influence dairy farmers have in setting the price of fresh milk

Item	Users of NFDMS	Nonusers of NFDMS
Dairy farmers have:	<i>Percent</i>	<i>Percent</i>
Great influence.....	19	15
Some influence.....	33	33
Little or no influence.....	35	35
No opinion.....	13	17
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

TABLE 34.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinions as to influence milk companies have in setting the price of fresh milk

Item	Users of NFDMS	Nonusers of NFDMS
Milk companies have:	<i>Percent</i>	<i>Percent</i>
Great influence.....	54	55
Some influence.....	30	28
Little or no influence.....	3	3
No opinion.....	13	14
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

TABLE 35.--Percentage distribution of users and nonusers of NFDMS in 1953 by awareness of changes in the amounts of advertising of milk products heard or seen during the last year

Item	Users of NFDMS	Nonusers of NFDMS
	<i>Percent</i>	<i>Percent</i>
Have seen or heard <u>more</u> about dairy products.....	66	59
Have noticed <u>no difference</u>	25	34
Have seen or heard less about dairy products.....	2	2
Don't know.....	7	5
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

TABLE 36.--Percentage distribution of users and nonusers of NFDMS in 1953 by awareness of advertising activities and slogans for milk products

Item	Users of NFDMS	Nonusers of NFDMS
Awareness of advertising activities:	<i>Percent</i>	<i>Percent</i>
Not aware.....	57	63
Aware of one or more		
Cheese festival.....	27	21
Ice cream festival.....	22	16
June dairy month.....	18	14
Milk festival.....	16	10
Total aware.....	¹ 43	¹ 37
Grand total.....	100	100
Awareness of advertising slogans:		
Not aware.....	35	43
Aware of one or more		
Drink Memphis fresh.....	45	38
You never outgrow your need for milk.....	34	28
Milk from contented cows.....	6	4
Birdie on the mailbox.....	5	3
Get the best - get Seal Test.....	4	3
Milk is a healthful drink--	2	1
More Memphis families drink Forest Hill than any other--	1	3
If it's Borden's, it's got to be good.....	(2) 4	2
Other replies.....	4	3
Total aware.....	¹ 65	¹ 57
Grand total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

¹ Percentages add to more than their subtotals because some homemakers gave more than one answer.

² Less than 0.5 percent.

TABLE 37.--Percentage distribution of users and nonusers of NFDMS in 1953 by awareness of advertising of milk products and by family income

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Aware of advertising	<i>Percent</i> 75	<i>Percent</i> 76	<i>Percent</i> 64	<i>Percent</i> 76	<i>Percent</i> 64	<i>Percent</i> 51
Not aware of advertising.....	25	24	36	24	36	49
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 84	<i>Number</i> 71	<i>Number</i> 59	<i>Number</i> 148	<i>Number</i> 109	<i>Number</i> 100

TABLE 38.--Percentage distribution of users and nonusers of NFDMS in 1953 by awareness of advertising of milk products and by educational levels

Item	Users of NFDMS ¹			Nonusers of NFDMS ²		
	Grammar school	High school	College	Grammar school	High school	College
Aware of advertising.....	<i>Percent</i> 53	<i>Percent</i> 77	<i>Percent</i> 93	<i>Percent</i> 50	<i>Percent</i> 68	<i>Percent</i> 82
Not aware of advertising.....	47	23	7	50	32	18
Totals.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 58	<i>Number</i> 117	<i>Number</i> 28	<i>Number</i> 90	<i>Number</i> 178	<i>Number</i> 74

¹ Educational level not reported by 11 homemakers.

² Educational level not reported by 15 homemakers.

TABLE 39.--Percentage distribution of users and nonusers of NFDMS in 1952 and in 1953, by ways specified milk products are used in the home

Item	Users of NFDMS		Nonusers of NFDMS	
	1952	1953	1952	1953
Regular milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	92	88	92	89
Baking.....	68	59	86	68
Cooking.....	62	59	84	66
Cereal.....	82	78	84	72
Coffee; tea.....	41	32	46	34
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 189	<i>Number</i> 111	<i>Number</i> 154	<i>Number</i> 166
Homogenized milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	94	95	96	96
Baking.....	63	54	81	65
Cooking.....	61	55	86	69
Cereal.....	78	76	84	77
Coffee; tea.....	51	29	48	40
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 145	<i>Number</i> 156	<i>Number</i> 162	<i>Number</i> 245
Plain buttermilk: ²	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	70	76	63	58
Baking.....	81	82	84	87
Cooking.....	38	7	47	5
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 210	<i>Number</i> 161	<i>Number</i> 201	<i>Number</i> 233
Nonfat dry milk solids:	<i>Percent¹</i>	<i>Percent¹</i>		
Drinking.....	60	55	--	--
Baking.....	63	77	--	--
Cooking.....	61	68	--	--
Cereal.....	17	18	--	--
Coffee; tea.....	9	6	--	--
Other.....	--	--	--	--
Total.....	100	100	--	--
Homemakers.....	<i>Number</i> 306	<i>Number</i> 214	<i>Number</i> 0	<i>Number</i> 0

See footnotes at end of table.

TABLE 39.--Percentage distribution of users and nonusers of NFDMS in 1952 and in 1953, by ways specified milk products are used in the home--Continued

Item	Users of NFDMS in		Nonusers of NFDMS in	
	1952	1953	1952	1953
Evaporated milk: ³	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Drinking.....	14	18	9	17
Baking.....	4 68	53	4 50	51
Cooking.....		62		58
Cereal.....	39	27	17	24
Coffee; tea.....	77	77	54	71
Other.....	35	--	14	--
Total.....	100	100	100	100
Homemakers	<i>Number</i> 260	<i>Number</i> 178	<i>Number</i> 308	<i>Number</i> 270
Butter:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Baking.....	(⁵)	48	(⁵)	50
Cooking.....	--	48	--	55
Table Use.....	--	96	--	94
Total.....	--	100	--	100
Homemakers.....	<i>Number</i> --	<i>Number</i> 71	<i>Number</i> --	<i>Number</i> 172
Oleomargarine:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Baking.....	(⁵)	79	(⁵)	83
Cooking.....	--	89	--	91
Table Use.....	--	94	--	89
Total.....	--	100	--	100
Homemakers.....	<i>Number</i> --	<i>Number</i> 209	<i>Number</i> --	<i>Number</i> 313

¹ Percentages add to more than 100 because some homemakers made more than one use of a product.

² Bulgarian buttermilk was included with plain buttermilk in 1952.

³ Condensed milk was included with evaporated milk in 1952.

⁴ Information on baking and cooking not obtained separately in 1952.

⁵ Data for butter and oleomargarine were not obtained in 1952.

TABLE 40.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home and by family income

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Regular milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	88	94	83	92	87	86
Baking.....	67	59	51	82	67	52
Cooking.....	67	62	49	79	69	48
Cereal.....	81	76	74	79	69	68
Coffee; tea.....	38	38	20	36	36	28
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 42	<i>Number</i> 34	<i>Number</i> 35	<i>Number</i> 61	<i>Number</i> 55	<i>Number</i> 50
Homogenized milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	97	94	91	94	96	98
Baking.....	63	53	35	73	60	55
Cooking.....	66	53	32	79	63	55
Cereal.....	84	72	65	84	73	69
Coffee; tea.....	32	33	21	43	47	25
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 73	<i>Number</i> 49	<i>Number</i> 34	<i>Number</i> 117	<i>Number</i> 73	<i>Number</i> 55
Plain buttermilk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	82	74	73	61	44	68
Baking.....	82	80	84	79	88	94
Cooking.....	7	9	6	6	4	5
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 56	<i>Number</i> 54	<i>Number</i> 51	<i>Number</i> 80	<i>Number</i> 76	<i>Number</i> 77
Nonfat dry milk solids:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>			
Drinking.....	49	62	56	--	--	--
Baking.....	70	77	85	--	--	--
Cooking.....	64	75	66	--	--	--
Cereal.....	15	18	20	--	--	--
Coffee; tea.....	7	4	7	--	--	--
Other.....	--	--	--	--	--	--
Total.....	100	100	100	--	--	--
Homemakers.....	<i>Number</i> 84	<i>Number</i> 71	<i>Number</i> 59	<i>Number</i> --	<i>Number</i> --	<i>Number</i> --

See footnotes at end of table.

TABLE 40.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home and by family income--Continued

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Evaporated milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	16	24	21	22	12	17
Baking.....	63	55	38	49	52	52
Cooking.....	76	62	45	58	61	56
Cereal.....	21	35	28	8	27	39
Coffee; tea.....	75	74	75	60	80	76
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 67	<i>Number</i> 58	<i>Number</i> 53	<i>Number</i> 101	<i>Number</i> 85	<i>Number</i> 84
Butter: .	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Baking.....	43	48	(2)	46	40	67
Cooking.....	54	48	(2)	55	44	67
Table use; spread.....	96	93	(2)	97	96	92
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 28	<i>Number</i> 29	<i>Number</i> 14	<i>Number</i> 74	<i>Number</i> 50	<i>Number</i> 48
Oleomargarine: .	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Baking.....	82	84	68	83	86	80
Cooking.....	95	84	85	97	90	84
Table use; spread.....	94	93	95	87	87	94
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 82	<i>Number</i> 68	<i>Number</i> 59	<i>Number</i> 130	<i>Number</i> 100	<i>Number</i> 83

¹ Percentages add to more than 100 because some homemakers made more than one use of a product.

² Too few cases for analysis.

TABLE 41.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home and by racial groups

Item	Users of NFDMS		Nonusers of NFDMS	
	White	Negro	White	Negro
Regular milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	85	97	90	86
Baking.....	66	44	73	61
Cooking.....	68	38	75	53
Cereal.....	81	69	77	65
Coffee; tea.....	37	21	36	30
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 79	<i>Number</i> 32	<i>Number</i> 100	<i>Number</i> 66
Homogenized milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	94	100	95	98
Baking.....	56	44	70	46
Cooking.....	61	31	76	38
Cereal.....	78	66	82	58
Coffee; tea.....	31	25	46	15
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 124	<i>Number</i> 32	<i>Number</i> 197	<i>Number</i> 48
Plain buttermilk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	75	79	55	61
Baking.....	81	85	80	98
Cooking.....	7	8	5	6
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 113	<i>Number</i> 48	<i>Number</i> 143	<i>Number</i> 90
Nonfat dry milk solids:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	52	65	--	--
Baking.....	72	90	--	--
Cooking.....	67	73	--	--
Cereal.....	17	21	--	--
Coffee; tea.....	6	6	--	--
Other.....	--	--	--	--
Total.....	100	100	--	--
Homemakers.....	<i>Number</i> 162	<i>Number</i> 52	<i>Number</i> --	<i>Number</i> --

See footnote at end of table.

TABLE 41.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home and by racial group--Continued

Item	Users of NFDMS		Nonusers of NFDMS	
	White	Negro	White	Negro
Evaporated milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	13	29	17	17
Baking.....	54	51	53	49
Cooking.....	65	57	62	51
Cereal.....	20	45	18	34
Coffee; tea.....	70	86	66	81
Other.....	--	--	--	--
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 127	<i>Number</i> 51	<i>Number</i> 174	<i>Number</i> 96
Butter:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Baking.....	33	72	45	59
Cooking.....	42	57	50	66
Table use; spread.....	95	96	97	89
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 43	<i>Number</i> 28	<i>Number</i> 111	<i>Number</i> 61
Oleomargarine:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Baking.....	79	78	84	80
Cooking.....	93	84	94	83
Table use; spread.....	94	92	89	90
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 159	<i>Number</i> 50	<i>Number</i> 230	<i>Number</i> 83

¹ Percentages add to more than 100 because some homemakers made more than one use of a product.

TABLE 42.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home, and by number of people eating in a household

Item	Users of NFDMS			Nonusers of NFDMS		
	1-2 people	3-4 people	5 or more	1-2 people	3-4 people	5 or more
Regular milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	69	94	94	82	92	90
Baking.....	69	62	49	65	76	55
Cooking.....	73	64	43	63	73	55
Cereal.....	69	82	77	67	74	77
Coffee; tea.....	19	38	34	35	37	23
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
	26	50	35	57	78	31
Homogenized milk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	86	97	100	91	97	100
Baking.....	60	54	48	57	70	63
Cooking.....	64	61	34	62	65	68
Cereal.....	62	84	75	72	78	84
Coffee; tea.....	26	30	32	32	45	40
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
	42	70	44	74	128	43
Plain buttermilk:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>percent¹</i>	<i>Percent¹</i>
Drinking.....	69	81	77	65	54	53
Baking.....	76	86	83	89	83	91
Cooking.....	2	13	4	1	8	4
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
	45	69	47	80	108	45
Nonfat dry milk solids:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>			
Drinking.....	54	58	53	--	--	--
Baking.....	75	72	85	--	--	--
Cooking.....	70	71	62	--	--	--
Cereal.....	19	17	18	--	--	--
Coffee; tea.....	8	3	8	--	--	--
Other.....	--	--	--	--	--	--
Total.....	100	100	100	--	--	--
Homemakers.....	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>	<i>Number</i>
	63	90	61	--	--	--

See footnotes at end of table.

TABLE 42.--Percentage distribution of users and nonusers of NFDMS in 1953, by ways specified milk products are used in the home, and by number of people eating in a household--Continued

Item	Users of NFDMS			Nonusers of NFDMS		
	1-2 people	3-4 people	5 or more	1-2 people	3-4 people	5 or more
Evaporated milk:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Drinking.....	8	13	34	3	19	35
Baking.....	48	61	45	51	51	51
Cooking.....	65	69	49	60	58	55
Cereal.....	17	27	36	26	18	35
Coffee; tea.....	75	74	77	81	65	71
Other.....	--	--	--	--	--	--
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 48	<i>Number</i> 77	<i>Number</i> 53	<i>Number</i> 89	<i>Number</i> 130	<i>Number</i> 51
Butter:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Baking.....	(2)	5	61	49	49	56
Cooking.....	(2)	34	61	59	55	48
Table use; spread.....	(2)	97	94	94	95	93
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 21	<i>Number</i> 32	<i>Number</i> 18	<i>Number</i> 63	<i>Number</i> 82	<i>Number</i> 27
Oleomargarine:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Baking.....	75	80	80	80	83	89
Cooking.....	88	91	85	92	91	91
Table use; spread.....	93	90	100	87	90	89
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 60	<i>Number</i> 90	<i>Number</i> 59	<i>Number</i> 103	<i>Number</i> 157	<i>Number</i> 53

¹ Percentages add to more than 100 because some homemakers made more than one use of a product.

² Too few cases for analysis.

TABLE 43.--Percentage distribution of users of NFDMS in 1953 by combination of specified milk products used in last 2 weeks

Item	Users of NFDMS in last 6 months
In last 2 weeks used:	<i>Percent</i>
Homogenized milk and NFDMS.....	34
Regular milk and NFDMS.....	19
Regular, homogenized, and NFDMS.....	10
Regular milk only.....	9
Homogenized milk only.....	15
Regular and homogenized milk.....	6
NFDMS only.....	7
Total.....	100
Homemakers.....	<i>Number</i> 214

TABLE 44.--Percentage distribution of users of NFDMS in 1953 by combination of specified milk products used in last 2 weeks by family income

Item	Users of NFDMS in last 6 months		
	High income	Middle income	Low income
In last 2 weeks used:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Homogenized milk and NFDMS.....	42	33	23
Regular milk and NFDMS.....	14	24	19
Regular, homogenized, and NFDMS.....	16	6	8
Regular milk only.....	4	11	13
Homogenized milk only.....	17	17	10
Regular and homogenized milk.....	6	3	8
NFDMS only.....	1	6	19
Total.....	100	100	100
Homemakers.....	<i>Number</i> 83	<i>Number</i> 71	<i>Number</i> 60

TABLE 45.--Percentage distribution of users of NFDMS in 1953 by combination of specified milk products used in last 2 weeks and by ways products were used in the home

Item	Combination use of NFDMS			
	Regular milk		Homogenized milk	
	NFDMS	Regular milk	NFDMS	Homogenized milk
Used for:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Drinking.....	57	87	56	95
Baking.....	80	48	82	47
Cooking.....	77	45	58	51
Cereal.....	25	65	10	75
Coffee, tea.....	8	25	6	36
Other.....	--	--	--	--
Homemakers.....	<i>Number</i> 40	<i>Number</i> 40	<i>Number</i> 73	<i>Number</i> 73

¹ Percentages add to more than 100 because some homemakers made more than one use of the product.

TABLE 46.--Nonfat dry milk solids: Percentage distribution of users and nonusers of NFDMS by products used in specified periods in 1952 and 1953

Item	1952 users of NFDMS				1952 nonusers of NFDMS			
	Last 6 months		Last 7 days		Last 6 months		Last 7 days	
	1952	1953	1952	1953	1952	1953	1952	1953
Regular milk.....	Percent ¹ 62	Percent ¹ 53	Percent ¹ 56	Percent ¹ 42	Percent ¹ 50	Percent ¹ 44	Percent ¹ 47	Percent ¹ 34
Homogenized milk.....	47	69	40	60	52	71	49	63
Special extra rich milk.....	5	6	2	2	7	8	6	4
Homemakers reporting.....	Number 284	Number 284	Number 284	Number 284	Number 287	Number 287	Number 287	Number 287

¹ Percentages add to more than 100 because some homemakers reported use of more than one milk product.

TABLE 47.--Percentage of households using nonfat dry milk solids in addition to other products within the same 7 day period

Item	Users of NFDMS and specified product in last 7 days of	
	1952	1953
Fresh whole milk:	<i>Percent</i> ¹	<i>Percent</i> ¹
Regular.....	57	29
Homogenized.....	37	53
Premium.....	3	1
Total.....	86	73
Buttermilk:		
Plain.....	49	39
Bulgarian.....	7	3
Total.....	55	41
Chocolate milk.....	10	11
Cream:		
Coffee (X).....	5	1
Whipping (XX).....	6	7
Total.....	10	8
Half-and-half mixture.....	(2)	(3)
Fresh skim milk.....	--	3
Canned milk:		
Condensed.....	10	10
Evaporated.....	85	50
Total.....	75	55
Butter.....	(2)	16
Oleomargarine.....	(2)	75
Cottage cheese.....	(2)	33
Homemakers reporting.....	<i>Number</i> 193	<i>Number</i> 226#

¹ Percentages add to more than their subtotals and these add to more than 100 because many homemakers reported use of more than one milk product.

² Product not included in 1952 survey.

³ Less than 0.5 percent.

TABLE 48.—Percentage distribution of users of NFDMS in 1953 by proportions of total supply of specified milk product used in specific ways in last 7 days

Item	Users of NFDMS											
	Regular milk for			Homogenized milk for			NFDMS for					
	Drinking	Baking	Cooking	Drinking	Baking	Cooking	Drinking	Baking	Cooking			
Proportion of total supply of specified milk products:	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
100% of supply.....	22	--	1	28	--	--	13	19	--	1	1	1
90% to 99%.....	5	--	--	10	--	--	1	--	--	--	--	--
80% to 89%.....	21	--	--	19	--	--	4	1	--	--	--	--
70% to 79%.....	19	--	--	16	--	--	4	--	--	--	--	--
60% to 69%.....	8	--	--	10	--	--	7	1	--	1	1	1
50% to 59%.....	7	4	4	9	1	1	7	21	1	20	20	20
40% to 49%.....	1	--	--	1	--	1	1	3	1	1	1	1
30% to 39%.....	5	--	4	--	1	1	5	7	7	8	8	8
20% to 29%.....	--	2	4	1	4	5	4	12	12	12	12	12
10% to 19%.....	--	15	18	1	7	12	--	4	4	7	7	7
1% to 9%.....	--	16	16	--	18	23	--	3	3	2	2	2
0%.....	12	63	53	5	69	56	54	39	39	48	48	48
Total.....	100	100	100	100	100	100	100	100	100	100	100	100
Homemakers.....	Number 89	Number 89	Number 89	Number 135	Number 135	Number 135	Number 135	Number 135	Number 135	Number 135	Number 135	Number 135

TABLE 49.--Percentage distribution of nonusers of NFDMS in 1953 by proportions of total supply of specified milk product used in specified ways in last 7 days

Item	Nonusers of NFDMS					
	Regular milk for			Homogenized milk for		
	Drinking	Baking	Cooking	Drinking	Baking	Cooking
Proportion of total supply of specified milk products:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
100% of supply.....	16	1	--	26	--	1
90% to 99%.....	5	--	--	11	--	--
80% to 89%.....	16	--	--	20	--	--
70% to 79%.....	20	--	--	19	--	--
60% to 69%.....	11	--	--	6	--	(¹)
50% to 59%.....	12	7	4	8	2	1
40% to 49%.....	1	--	--	2	--	1
30% to 39%.....	6	2	4	(¹)	2	2
20% to 29%.....	2	4	8	1	3	4
10% to 19%.....	2	14	19	--	8	11
1% to 9%.....	--	20	24	(¹)	22	27
0%.....	9	52	41	6	63	53
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 127	<i>Number</i> 127	<i>Number</i> 127	<i>Number</i> 216	<i>Number</i> 216	<i>Number</i> 216

¹ Less than 0.5 percent.

TABLE 50.--Percentage distribution of users of NFDMS both in 1952 and in 1953 by ways specified milk products were used in each year

Item	Users of NFDMS used specified product				
	1952 and 1953	1952, only	1953, only	Total	Homemakers
Regular milk for:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Number</i>
Drinking.....	58	28	14	100	98
Baking.....	47	32	21	100	71
Cooking.....	37	37	26	100	70
Cereal.....	53	32	15	100	88
Coffee; tea.....	31	47	22	100	45
Homogenized milk for:					
Drinking.....	45	9	46	100	104
Baking.....	32	18	50	100	71
Cooking.....	33	21	46	100	67
Cereal.....	39	14	47	100	91
Coffee; tea.....	33	41	26	100	49
Buttermilk for:					
Drinking.....	54	18	28	100	100
Baking.....	55	18	27	100	106
Cooking.....	2	90	8	100	39
Nonfat dry milk solids for:					
Drinking.....	50	20	30	100	103
Baking.....	65	8	27	100	124
Cooking.....	62	15	23	100	116

TABLE 51.--Percentage distribution of users of NFDMS in 1953 by use of NFDMS for making sweet milk and buttermilk

Item	Users of NFDMS
Use NFDMS for making sweet milk	<i>Percent</i> ¹
For cooking.....	53
For baking.....	52
For drinking.....	41
On cereal.....	19
For coffee, tea.....	6
Total.....	73
Use NFDMS for making buttermilk	
For baking.....	42
For drinking.....	29
For cooking.....	11
Total.....	47
Homemakers.....	<i>Number</i> 214

¹ Percentages add to more than their subtotals and these add to more than 100 because some homemakers used NFDMS in more than one way.

TABLE 52.--Percentage distribution of users of NFDMS in 1953 by use of NFDMS for making sweet milk and buttermilk and by family income

Item	Users of NFDMS		
	High income	Middle income	Low income
Use NFDMS for making sweet milk	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
For cooking.....	49	56	54
For baking.....	49	56	51
For drinking.....	45	42	34
On cereal.....	15	20	24
For coffee, tea.....	7	4	7
Total.....	79	76	63
Use NFDMS for making buttermilk			
For baking.....	30	48	51
For drinking.....	20	35	32
For cooking.....	6	14	15
Total.....	36	54	56
Homemakers.....	<i>Number</i> 84	<i>Number</i> 71	<i>Number</i> 59

¹ Percentages add to more than their subtotals and these add to more than 100 because some homemakers used NFDMS in more than one way.

TABLE 53.--Percentage distribution of homemakers who use NFDMS as a liquid and report difficulties encountered in mixing

Item	Homemakers who used NFDMS as a liquid in--	
	1952	1953
	<i>Percent</i>	<i>Percent</i>
Have difficulties.....	20	22
Have no difficulties.....	80	78
Total.....	100	100
Homemakers.....	<i>Number</i> 306	<i>Number</i> 193

TABLE 54.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for using specified milk products

Item	Users of NFDMS		Nonusers of NFDMS
	NFDMS	Evaporated milk	Evaporated milk
Reasons given:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
It costs less.....	62	15	11
On low butterfat diet.....	22	--	--
Handy for cooking, baking.....	14	21	37
It's an adequate substitute.....	9	5	3
Keeps better longer.....	4	12	10
Saw it advertised, tried it out of curiosity.....	3	--	--
Prefer for flavor.....	3	6	27
Just like it.....	3	4	3
Good for health, more nutritious.....	--	7	4
Use it for baby formula.....	--	9	12
Like it for coffee, chocolate.....	--	42	45
Other replies.....	1	3	4
Don't know.....	1	2	1
Homemakers.....	<i>Number</i> 214	<i>Number</i> 178	<i>Number</i> 270

¹ Percentages add to more than 100 because some homemakers gave more than one reason.

TABLE 55.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for not using specified milk products

Item	Users of NFDMS	Nonusers of NFDMS	
	Evaporated milk	NFDMS	Evaporated milk
Reasons given:	<i>Percent¹</i>	<i>Percent¹</i>	<i>Percent¹</i>
Just don't like it.....	58	62	70
Don't like taste, flavor.....	22	10	22
Not as much food value.....	6	7	--
Don't like it in coffee.....	3	--	1
Doesn't keep well.....	--	1	1
Not good for cooking, baking.....	--	1	--
Don't get your money's worth.....	--	(²)	--
Not an adequate substitute.....	--	1	--
Other replies.....	6	20	--
Don't know.....	8	5	7
Homemakers.....	<i>Number</i> 36	<i>Number</i> 357	<i>Number</i> 87

¹ Percentages total to more than 100 because some homemakers gave more than one reason.

² Less than 0.5 percent

TABLE 56.--Percentage distribution of users and nonusers of NFDMS in 1952 and 1953 by comparison of nutritive value of fresh milk and NFDMS

Item	Users of NFDMS		Nonusers of NFDMS	
	1952	1953	1952	1953
NFDMS has--	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
More food value than fresh milk.....	4	2	1	1
Less food value than fresh milk.....	32	51	24	35
Equal to fresh milk.....	52	27	12	11
Don't know.....	12	20	63	53
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 306	<i>Number</i> 214	<i>Number</i> 308	<i>Number</i> 357

TABLE 57.--Percentage distribution of users and nonusers of NFDMS in 1953 by opinions as to change in amount of specified products used in 1953 as compared to 1952

Item	Users of NFDMS			
	Butter	Oleomar- garine	Cottage Cheese	Half-and- half mixture
Amount used in 1953 compared to 1952:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Same.....	65	74	74	67
More.....	23	18	14	17
Less.....	11	7	7	8
Don't know.....	1	1	5	8
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 71	<i>Number</i> 209	<i>Number</i> 125	<i>Number</i> 12
	Nonusers of NFDMS			
Amount used in 1953 compared to 1952:	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
Same.....	77	78	70	60
More.....	15	14	13	25
Less.....	7	7	8	10
Don't know.....	1	1	9	5
Total.....	100	100	100	100
Homemakers.....	<i>Number</i> 172	<i>Number</i> 313	<i>Number</i> 193	<i>Number</i> 40

TABLE 58.--Percentage distribution of users and nonusers of NFDMS in 1953, by replies regarding satisfaction with amounts of specified products being used

Item	Users of NFDMS		Nonusers of NFDMS	
	<i>Percent</i>		<i>Percent</i>	
Oleomargarine:				
Would use more.....	15		9	
Depends (qualified).....	4		3	
Would use same amount.....	81		88	
No opinion.....	--		--	
Total.....	100		100	
Homemakers.....	<i>Number</i> 209		<i>Number</i> 313	
Butter:				
Would use more.....	66		53	
Depends (qualified).....	--		1	
Would use same amount.....	34		45	
No opinion.....	--		1	
Total.....	100		100	
Homemakers.....	<i>Number</i> 71		<i>Number</i> 172	

TABLE 59.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for using butter and oleomargarine

Item	Users of NFDMS		Nonusers of NFDMS	
	Butter	Oleo- margarine	Butter	Oleo- margarine
Reasons given:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Prefer taste, flavor.....	44	12	49	10
Just prefer it, like it.....	23	8	22	7
Better for you.....	13	4	10	1
Use for guests, special occasions.....	13	--	10	--
Like it better for cooking, baking.....	8	6	9	12
Can afford it.....	6	--	5	--
Cheaper.....	--	82	--	80
It's an adequate substitute.....	--	6	--	15
Keeps better.....	--	2	--	3
Other replies.....	1	(2)	3	1
Don't know.....	1	1	--	1
Homemakers.....	<i>Number</i> 71	<i>Number</i> 209	<i>Number</i> 172	<i>Number</i> 313

¹ Percentages add to more than 100 because some homemakers gave more than one reason.

² Less than 0.5 percent.

TABLE 60.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for not using butter and oleomargarine

Item	Users of NFDMS		Nonusers of NFDMS	
	Butter	Oleo- margarine	Butter	Oleo- margarine
Reasons given:	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹	<i>Percent</i> ¹
Too expensive.....	72	(²)	77	--
Don't like taste.....	8	(²)	6	27
Just don't like it.....	8	(²)	12	55
Both same, no difference.....	4	(²)	3	2
Doesn't keep well.....	3	--	3	--
Because of diet.....	2	--	--	2
Can't get fresh country butter.....	2	--	1	--
Don't like to cook with it.....	1	--	--	2
Other replies.....	1	--	1	5
Don't know.....	6	(²)	1	7
Homemakers.....	<i>Number</i> 143	<i>Number</i> 5	<i>Number</i> 185	<i>Number</i> 44

¹ Percentages add to more than 100 because some homemakers gave more than one reason.

² Too few cases for analysis.

TABLE 61.--Percentage distribution of users and nonusers of NFDMS in 1953 by comparison of nutritive value of butter and oleomargarine

Item	Users of NFDMS	Nonusers of NFDMS
Oleomargarine has --	<i>Percent</i>	<i>Percent</i>
More food value than butter.....	6	5
Less food value than butter.....	39	45
Equal to butter.....	33	25
Don't know.....	22	25
Total.....	100	100
Homemakers.....	<i>Number</i> 214	<i>Number</i> 357

TABLE 62.--Percentage distribution of users and nonusers of NFDMS in 1953 by comparison of nutritive value of butter and oleomargarine and by family income

Item	Users of NFDMS			Nonusers of NFDMS		
	High income	Middle income	Low income	High income	Middle income	Low income
Oleomargarine has--	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
More food value than butter	11	3	3	7	6	2
Less food value than butter	37	34	49	36	48	55
Equal to butter.....	40	28	29	37	20	12
Don't know.....	12	35	19	20	26	31
Total.....	100	100	100	100	100	100
Homemakers.....	<i>Number</i> 84	<i>Number</i> 71	<i>Number</i> 59	<i>Number</i> 148	<i>Number</i> 109	<i>Number</i> 100

TABLE 63.--Percentage distribution of users and nonusers of NFDMS in 1953 by comparison of nutritive value of butter and oleomargarine by users of these products

Item	Users of NFDMS			Nonusers of NFDMS ¹		
	Uses butter only	Uses oleo only	Uses both	Uses butter only	Uses oleo only	Uses both
Oleomargarine has--	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
More food value than butter	--	8	3	--	6	5
Less food value than butter	(2)	31	58	50	38	54
Equal to butter.....	--	35	30	10	29	23
Don't know.....	(2)	26	9	40	27	18
Total.....		100	100	100	100	100
Homemakers.....	<i>Number</i> 5	<i>Number</i> 143	<i>Number</i> 66	<i>Number</i> 40	<i>Number</i> 180	<i>Number</i> 133

¹ Four homemakers do not use butter or oleomargarine.

² Too few cases for analysis.

TABLE 64.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for saying that oleomargarine has the same or less food value as butter

Users of NFDMS

Food value in oleomargarine as in butter is--			
Same		Less	
Item	Percentage of homemakers	Item	Percentage of homemakers
Reason given:	<i>Percent¹</i>	Reason given:	<i>Percent¹</i>
Vitamins added.....	23	Made of vegetable oil, no butterfat.....	50
Advertised as such.....	14	It is not as rich.....	26
Good substitute.....	13	It doesn't taste the same....	7
Tastes the same.....	8	Just don't think so.....	7
Just think so.....	4	It's only a substitute.....	5
It's just as rich.....	3	Doctor advised so.....	4
Other replies.....	6	Other replies.....	2
Don't know.....	35	Don't know.....	4
	<i>Number</i>		<i>Number</i>
Homemakers.....	71	Homemakers.....	84

Nonusers of NFDMS

Reason given:	<i>Percent¹</i>	Reason given:	<i>Percent¹</i>
Vitamins added, no butterfat..	28	Made of vegetable oil, no butterfat.....	39
Advertised as such.....	22	It is not as rich.....	36
Just think so.....	12	Just don't think so.....	7
Tastes the same.....	5	It's only a substitute.....	7
A good substitute.....	5	It doesn't taste the same....	6
Other replies.....	7	Other replies.....	3
Don't know.....	21	Don't know.....	7
	<i>Number</i>		<i>Number</i>
Homemakers.....	89	Homemakers.....	160

¹ Percentages may total to more than 100% because some homemakers gave more than one reason.

Reasons given by homemakers who said oleomargarine has more food value not shown because of too few cases.

TABLE 65.--Percentage distribution of users and nonusers of NFDMS in 1953 by use of butter and oleomargarine in last 2 weeks

Item	Users of NFDMS	Nonusers of NFDMS
In last 2 weeks used:	<i>Percent</i>	<i>Percent</i>
Butter only.....	4	13
Oleomargarine only.....	73	56
Butter and oleomargarine.....	23	31
Total.....	100	100
Homemakers.....	<i>Number</i> 206	<i>Number</i> 350

TABLE 66.--Percentage distribution of users and nonusers of NFDMS in 1953 by use of butter and oleomargarine in last 2 weeks

Item	Users of NFDMS	Nonusers of NFDMS
In last 2 weeks used:		
Butter and oleomargarine		
Used butter for:	<i>Percent</i> ¹	<i>Percent</i> ¹
Baking.....	52	37
Cooking.....	44	44
Table use; spread.....	92	92
Used oleomargarine for:		
Baking.....	85	83
Cooking.....	90	93
Table use; spread.....	73	69
Homemakers.....	<i>Number</i> 48	<i>Number</i> 107

¹ Percentages total more than 100 because some homemakers made more than one use of a product.

TABLE 67.--Percentage distribution of users and nonusers of NFDMS in 1953 by reasons given for change in amount of cottage cheese used in 1953 as compared to 1952

Item	Users of NFDMS	Nonusers of NFDMS
Reasons given for using more:	<i>Percent</i> ¹	<i>Percent</i> ¹
Illness, diet.....	(2)	36
Have come to like it better.....	(2)	--
Making more salads.....	(2)	20
Wasn't keeping house a year ago.....	--	16
Just eating more, no particular reason.....	--	16
Other replies.....	(2)	20
Homemakers.....	<i>Number</i> 17	<i>Number</i> 25
Reasons given for using less:	<i>Percent</i> ¹	<i>Percent</i> ¹
Off diet now.....	(2)	(2)
No particular reason, just eating less.....	(2)	--
Family smaller.....	(2)	(2)
Don't make as many salads.....	--	(2)
Just got tired of it.....	--	(2)
Other replies.....	(2)	(2)
Homemakers.....	<i>Number</i> 9	<i>Number</i> 16

¹ Percentages add to more than 100 because some homemakers gave more than one reason.

² Too few cases for analysis.

NATIONAL AGRICULTURAL LIBRARY



1022715807